MODERN PACKAGING

February 1946

How should an adhesive REACT TO MOISTURE?

WHAT kind of moisture? Bathroom condensate . . . freight car humidity . . . quick-freeze dew formation . . . mildew damp . . . or merely tongue wetting to seal an envelope?

An adhesive must either *resist* moisture or *respond* to moisture. To what degree? That depends upon the product's final use. And the degree of reaction affects the adhesive formulation.

For in addition to its major function of adhesion, an adhesive must be able to withstand all normal or unusual conditions of use. It must protect the seller's product by keeping it tightly sealed in its container . . . maintain the product's identity by keeping it permanently labeled . . . or fulfill the product's function by reactivating to moisture for final adhesion.

Adhesive formulation is a task for a specialist. It requires a complete knowledge of the surface factors, application methods and field conditions that determine the final sales protection an adhesive can give to your product. National is an adhesive specialist. We're ready to help you — NOW!

ARMY NAVY E

DUNELLEN PLANT

adison Avenue, New York 16; enaw Avenue, Chicago 32; t, San Francisco 11, and other n Canada: Metcalfe, Simmons nto. In England: National Adugh.

National ADHESIVES

PE OF ADHESIVE FOR EVERY INDUSTRIAL USE

ECHNOLOGY DEPT!

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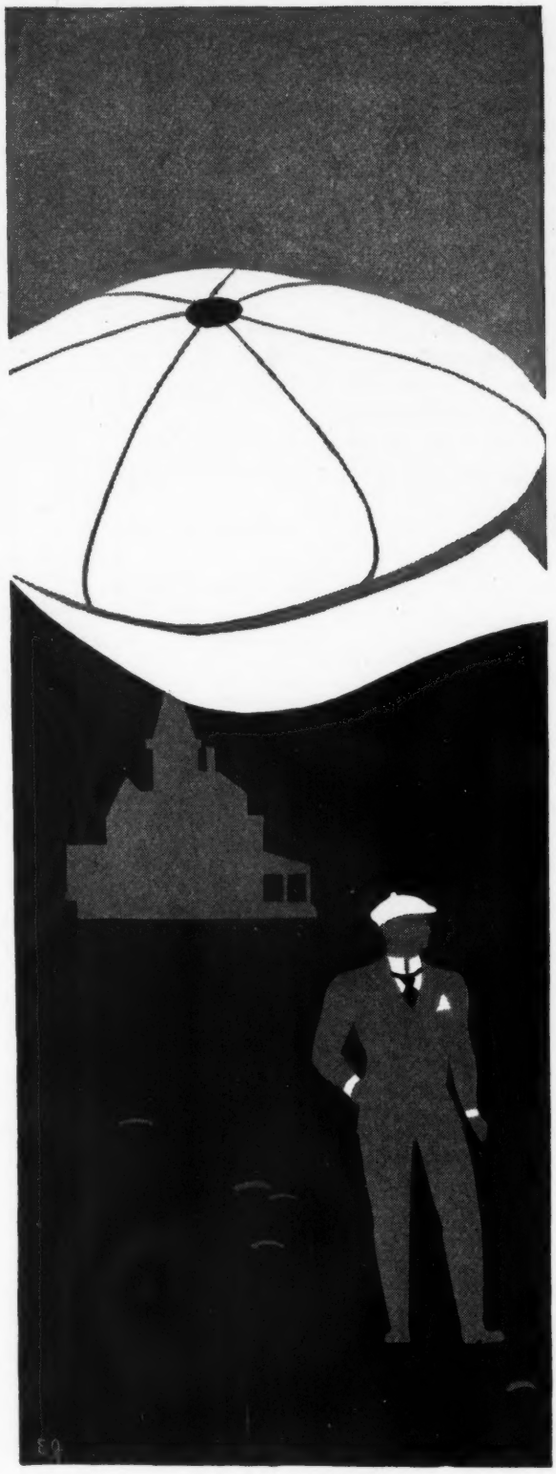

SIMPLE

A SIMPLE CAP for glass packages is a handy cap for packer and consumer. A problem cap to either is a handicap to both. The Phoenix CT is a simple cap designed for the convenience of our customers . . . and for the convenience of theirs. Simple to apply, mechanically or manually; simple to remove for even the least closure-wise, the Phoenix CT is neither a problem cap nor a handicap to either packer or consumer. On the contrary, its simple features make it a boon to both.

Top wear for glassware

PHOENIX METAL CAP CO.
Chicago 8 and Brooklyn 18

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MODERN PACKAGING

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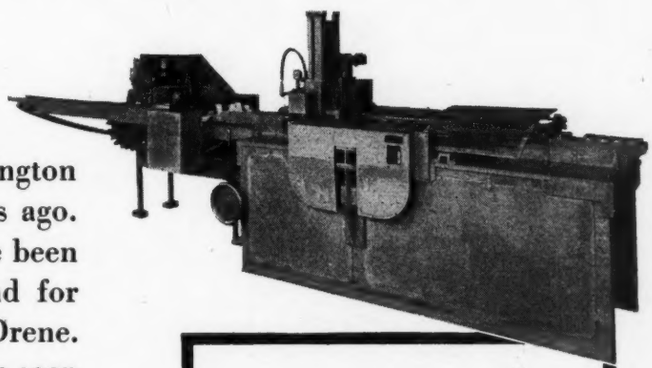
COVER—The making of packages concerns almost every natural resource and basic industry in the world—steel, petroleum, rubber, cotton, paper, glass, plastics, mining, logging, farming. Our 1946 cover series by Peter Piening pictures symbolically how such basic materials that go into packages are derived. The February cover is a story of metal containers—raw ore, iron and tin—through the refining and manufacturing processes into cans.

Both sizes are cartoned on *One* adjustable *Redington* at Procter & Gamble

Speed: 150 a minute



Procter & Gamble purchased its first Redington packaging machine in 1928 – *eighteen* years ago. Since then a large number of machines have been shipped to them for this same product and for other of their well known items including Drene.

The adjustable cartoning machine for Lava soap shown here is typical. It produces either the 5 oz. *or* 7 oz. bar with smooth quiet precision at the rate of *150* per minute. And the operation is simple:

As the bars of soap are fed on conveyor the Redington feeds a circular and folds it into three panels. Circular is wrapped lengthwise around the bar so that the unprinted surface will be against the bar and the printed matter on the outside. Collapsed cartons are fed from magazine and formed. Bar with circular is inserted and then carton is closed by tucking in the end flaps.

Redington's Packaging experience and ingenuity —*49 years* of it—are ready to go to work on *your* packaging problem, too. Write us—today.

The circular is folded completely around the bar lengthwise... regardless of what end of the carton is opened, the reading matter can't be missed!

F. B. REDINGTON CO. (Est. 1897), 110-112 So. Sangamon St., Chicago 7, Ill.

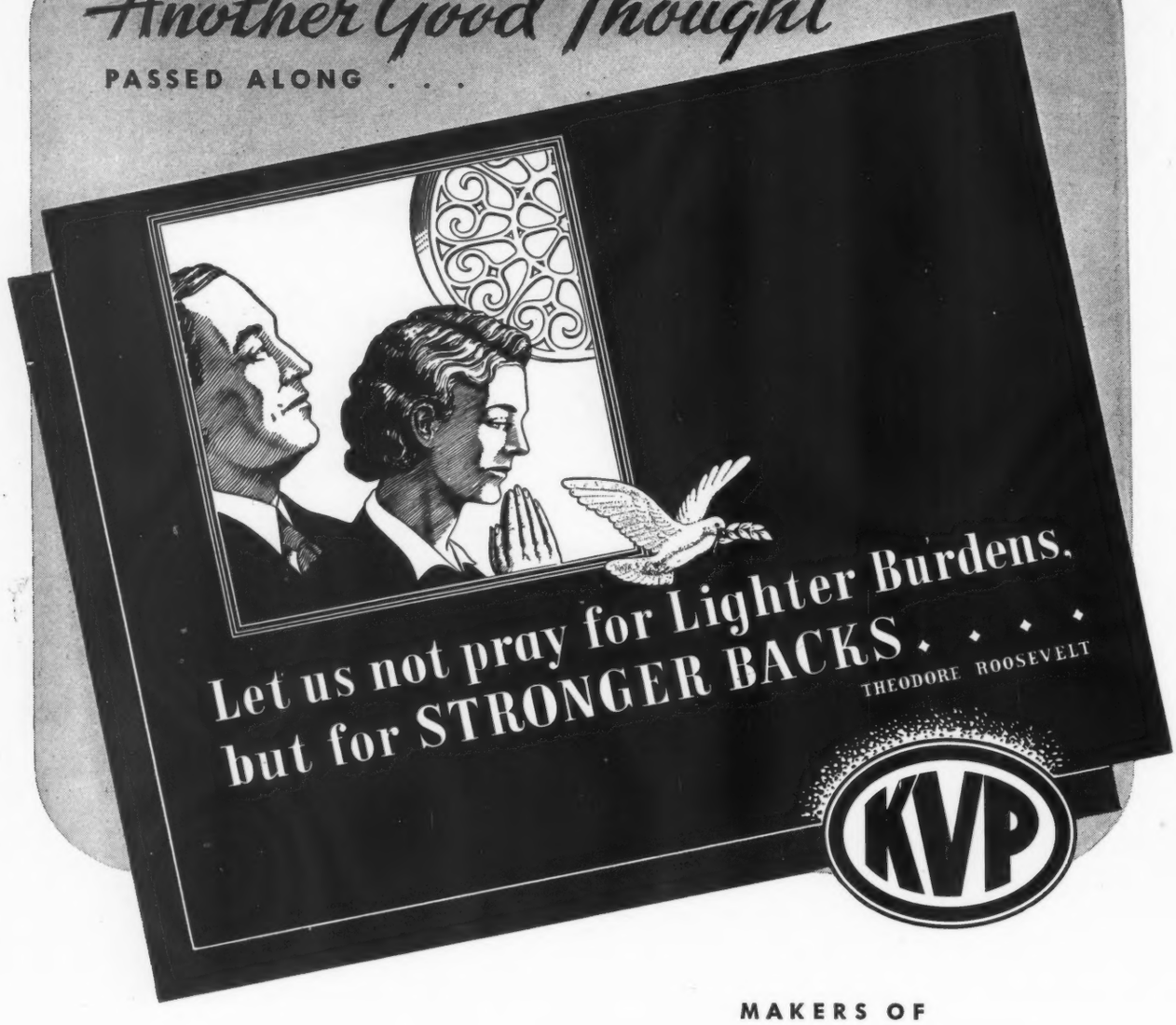
REDINGTON

PACKAGING MACHINES

FOR CARTONING • WRAPPING • SPECIAL PACKAGING

Another Good Thought

PASSED ALONG . . .



MAKERS OF

FOOD PROTECTION PAPERS

★

GENUINE VEGETABLE PARCHMENT
SPECIAL TREATED . .
GREASEPROOF . .
WAXED . .

"THE WORLD'S MODEL PAPER MILL"

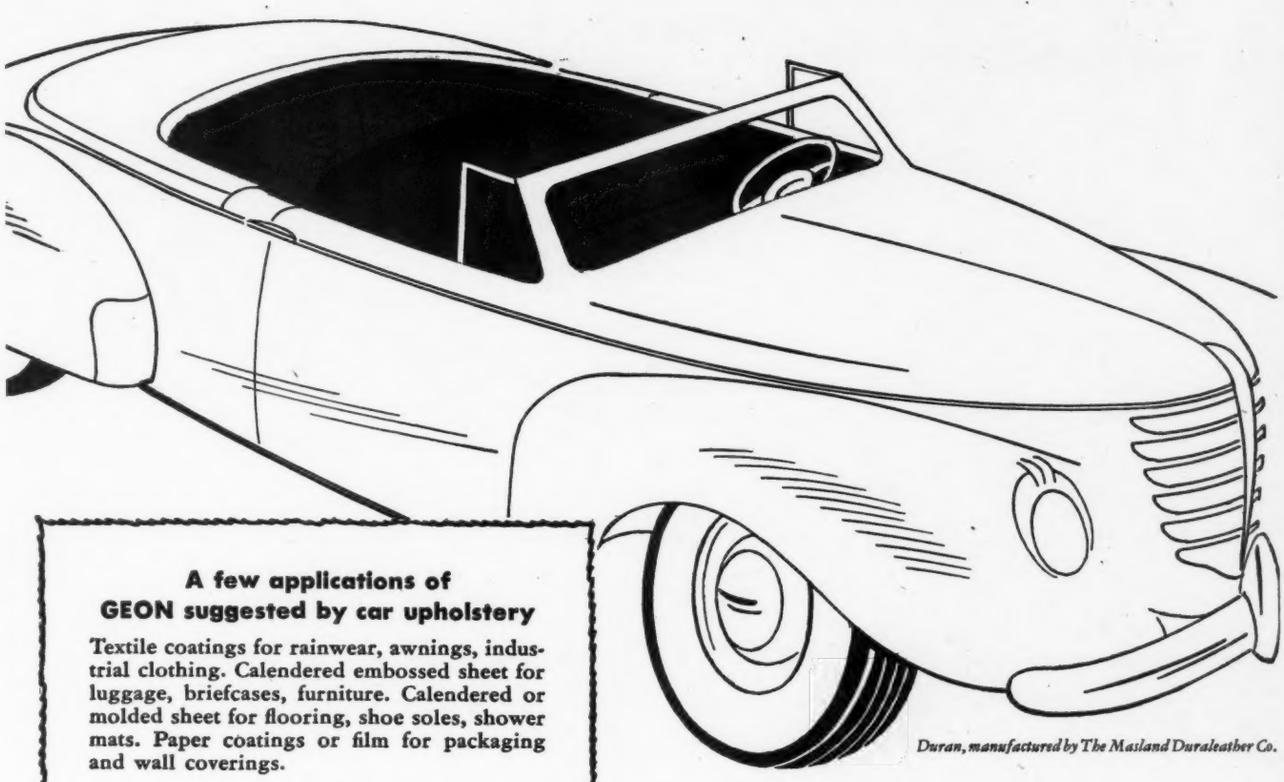
KALAMAZOO VEGETABLE PARCHMENT COMPANY

. . .

PARCHMENT · KALAMAZOO 99 · MICH.

BRANCH PLANTS IN HOUSTON, TEXAS AND PHILADELPHIA, PENNSYLVANIA

Geon ...
for converting a convertible's upholstery



Duran, manufactured by The Masland Duraleather Co.

A few applications of GEON suggested by car upholstery

Textile coatings for rainwear, awnings, industrial clothing. Calendered embossed sheet for luggage, briefcases, furniture. Calendered or molded sheet for flooring, shoe soles, shower mats. Paper coatings or film for packaging and wall coverings.

Modern, weather-resistant seating suggests uses for GEON raw materials in every industry

Convertibles of the future—as well as standard passenger models, planes, trains, and buses—will feature new materials for seating, interior trim, and tops; materials made from or treated with GEON polyvinyl resins. Performance-proved in conclusive tests, these new materials have many definite advantages over anything previously used. And the properties that make GEON superior for this purpose suggest uses in every industry and every home.

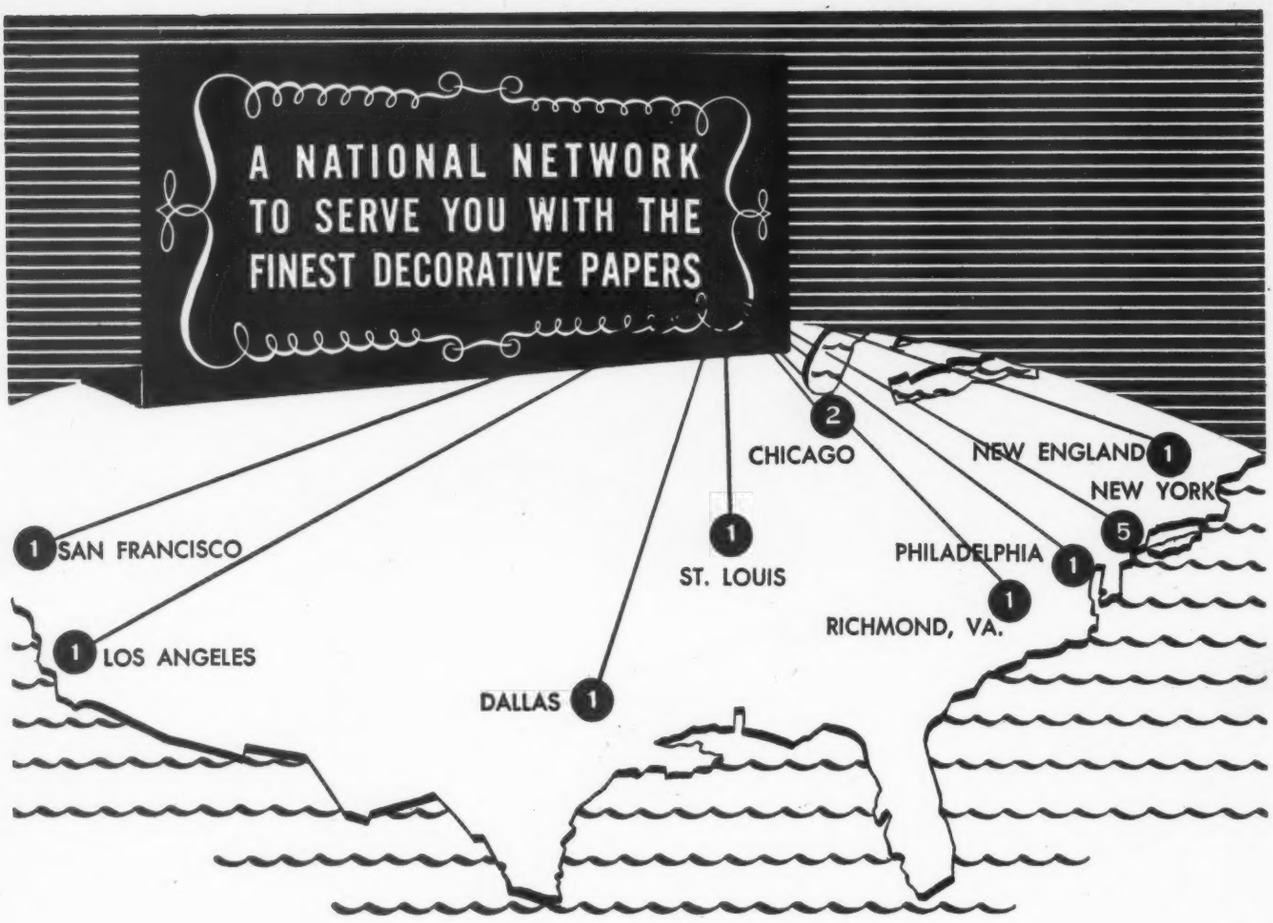
For example, upholstery material properly made from GEON will resist the effects of weather, aging, sunlight, rain, and flexing indefinitely. It won't crack or get gummy even after prolonged exposure. It's easy to clean with soap and water. It resists foods and chemicals of all kinds—even strong acids have no effect. It's mildew-proof—fungi simply can't penetrate the surface. It will wear indefinitely—won't even show signs of severe usage and scuffing. It can be brightly or delicately colored for beautiful appearance.

These and other properties may be had in any number of combinations designed to meet specific service conditions. And GEON can be processed in many different ways—injection or compression molded, calendered or cast into sheet or film, calendered or spread into thin or heavy coatings for textiles and papers of all kinds. All this means that the *established and potential applications for GEON in every field are literally limitless.* For more information about GEON raw materials please write Dept. L-2, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.

Geon
Polyvinyl Materials

B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY



Kupfer maintains sales offices in the largest cities from coast to coast—some cities have several representatives indicated by the numbers on the map.

This national sales and distribution network is designed to expedite your purchase of the finest line of packaging papers. Kupfer designs are famous for their beauty, attractiveness and proved sales appeal.

Kupfer papers are manufactured and stocked in the widest range of colors, patterns and textures.

In addition, this national organization is the recognized source for the finest *trademarked* papers. We work your trademark into a personalized paper for wrapping your product, or we will design a trademark or some special pattern for your purpose. Many of the country's leading department stores rely on Kupfer trademarked papers.

A sample book will be sent on request.

KUPFER BROS. CO.

Manufacturers of Surface Coated Papers

4 ASTOR PLACE, NEW YORK 3, N. Y.

Est. 1845

BOSTON • RICHMOND • PHILADELPHIA

KUPFER BROS. PAPER CO.
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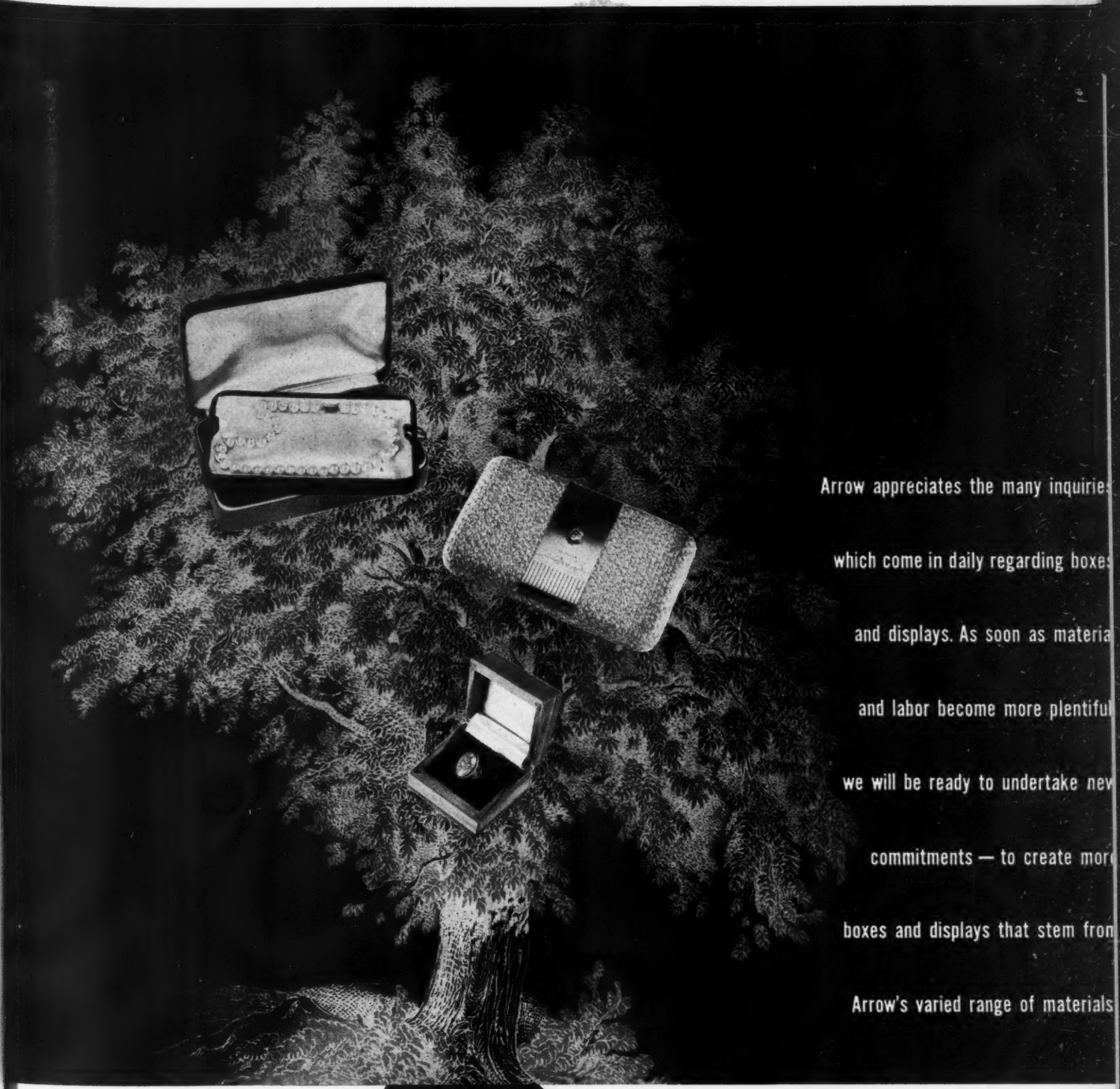


Arrow appreciates the many inquiries
which come in daily regarding boxes
and displays. As soon as materia
and labor become more plentiful
we will be ready to undertake new
commitments — to create more
boxes and displays that stem from
Arrow's varied range of materials

metal
glass
leather
cardboard
fabrics
plastics
wood

Arrow

BOXES AND DISPLAYS

ARROW MANUFACTURING COMPANY, INC. • FIFTEENTH AND HUDSON STREETS • HOBOKEN, NEW JERSEY

POTASSIUM

. . . one "hitch-hiking" ingredient that helps the glassmaker!

ONE reason why glassmaking is a complicated process is that so many of the ingredients bring along "hitch-hikers" — extra elements that are carried into the batch along with the main ingredient itself. One such "hitch-hiker" is potassium, which gets into modern container glass batches as part of the feldspar which is added for the alumina it contains.

Most of these uninvited ingredients are not helpful. Frequently they create conditions that the glassmaker must correct by adding other ingredients.

But potassium is different. It actually helps improve the quality of the finished ware. It acts as a flux which lowers the melting point of the batch. It helps prevent devitrification (the formation of small crystals as the glass cools), and it increases the hardness and brilliance of the glass containers.

To produce good glass, the glassmaker must not only be able to recognize and secure the purest ingredients possible but must also know how to evaluate the incidental ingredients and compensate for them where necessary. Armstrong's glassmakers, through long experience and continued research, have developed these skills to a high degree. Their success is one of the reasons why Armstrong's glass enjoys its outstanding reputation for top quality.

"Men and Glass," Armstrong's illustrated booklet, describes the making of fine glass. For your free copy, write Armstrong Cork Company, Glass and Closure Division, 5902 Prince Street, Lancaster, Penna.

PHOTOGRAPH COURTESY OF AMERICAN MUSEUM OF NATURAL HISTORY

ARMSTRONG'S GLASS *and* **ARMSTRONG'S CLOSURES**

Women teach men how to *Wrap Up a Sale!*

PERHAPS women cannot analyze your selling problems for you, but *they buy* ¾ of everything sold at retail.

From *how* they buy, you can learn *how* to "wrap up" a lot of sales.

And what you learn will have a lot to do with how you "wrap up" (*package*) your product.

For surveys (and common retail experience) show that 62% to 75% of all their buying decisions are made on impulse—*at the point-of-sale!*

And *there* the package that attracts their eyes, arouses their interest—and makes a better impression of quality than competing packages—WINS SALES.

Never underestimate the power of the package!

LET RITCHIE WORK WITH YOU to develop a better package at low unit cost. One that will instantly identify, fully protect and conveniently dispense your product—practical—production-planned—easy to fill or pack—to handle, to stack and display—but *above all* designed for eye appeal, for quality impression—a package that sells!

Never Underestimate the Power of the Package!

W. C. Ritchie and COMPANY

5941 Baltimore Avenue • Chicago 17

★ SET-UP PAPER BOXES

★ FIBRE CANS

★ TRANSPARENT PACKAGES

COPYRIGHT 1945, W. C. RITCHIE & CO.

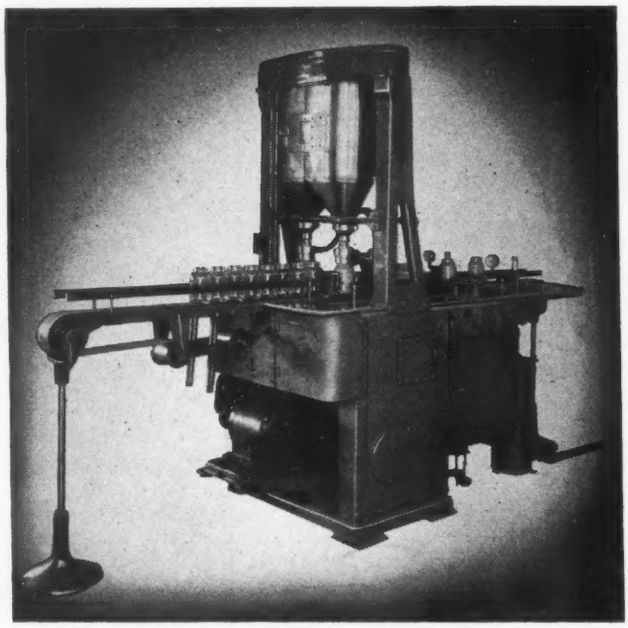
NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS • MILWAUKEE • ATLANTA • NEW ORLEANS • PORTLAND • SEATTLE • MIAMI

FILL POWDERS INTO JARS THE "AUGER-VAC" WAY

Clean . . . Fast . . . Accurate

In the S & S Automatic Filling Machine with Auger-Vac equipment, packers of powdered milk, ice cream mix, malted milk, cocoa and many other products, have the answer to their packing problems.

"Auger-Vac" is a combination auger-vacuum system. The speed and accuracy of the auger feed, plus the dustless fill of the vacuum method, fills jars, cans or other airtight containers with the desired amount of packing and insures a dustless fill and tight pack.



Shown here is the HG-84 Duplex Heavy Duty Filling Machine equipped with Auger-Vac; production 50 per minute. Various types of this machine are available with "speeds to suit your needs:" 15-25-50-100 per minute. The Auger-Vac method may be used also on S & S Single Unit Filling Machines.

The rush of orders in recent months has taxed our manufacturing facilities. We are doing everything possible to meet the demand for machines . . . it will pay you to wait a little longer for an S & S unit—the right machine for the job. Engineering consultation at your disposal—write for full information.

STOKES & SMITH Co

Frankford, Philadelphia 24, U.S.A.

FILLING · PACKAGING · WRAPPING MACHINES

"Better machines for better packages"

ATTRACT...PROTECT...PERSUADE

IT'S a question who welcomes the window box more—the shopper who likes to see what she buys, the shop keeper who must fight the battle against soiled and shopworn merchandise or the manufacturer who must compete.

Lumarith transparent film is the perfect material for clear and sparkling windows. Lumarith is dimensionally stable—won't sag, wrinkle, or pull the container out of shape.

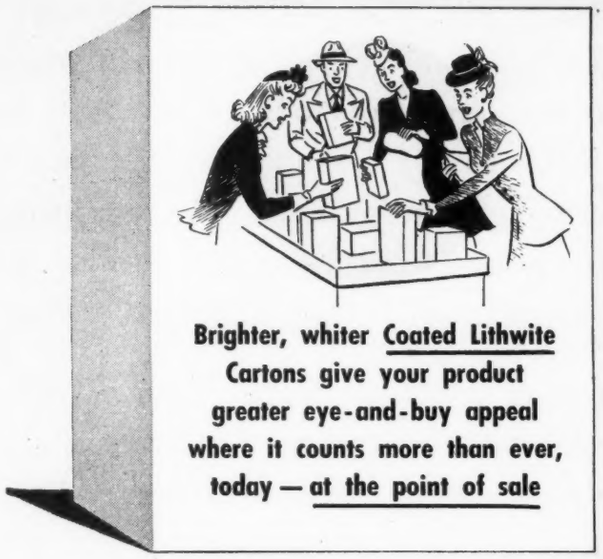
Your merchandising plans should include the window container. No other packaging method is more effective and economical. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.

A Celanese Plastic*

*Reg. U. S. Pat. Off.

Their eyes

have to reach...before their hands



Brighter, whiter Coated Lithwite Cartons give your product greater eye-and-buy appeal where it counts more than ever, today — at the point of sale

MORE ATTRACT-IVE PACKAGES. Packages that make shoppers' eyes *reach* for them. That's the point-of-sale advantage *Coated* Lithwite Cartons are giving many of America's leading products, today.

Coated Lithwite is the revolutionary paperboard that is formed, made and coated in one high-speed operation. Whiter. Brighter. Its smoother, harder, chalk-free surface makes a perfect base for printing inks . . . brings colors up brilliantly, reproduces half-tones with sales-making realism.

Fewer "jammers" and "leakers." *Coated* Lithwite folds without flaking or shattering. Takes a tight, positive seal. Production of *Coated* Lithwite cartons is currently sold up. But get full facts about *Coated* Lithwite cartons now. Ask a Gardner-Richardson sales representative to call.

More eyes reach for your product in . . .

Coated Lithwite Cartons

THE GARDNER-RICHARDSON CO. • Manufacturers of Folding Cartons and Boxboard • Middletown, Ohio

Sales Representatives in Principal Cities: Philadelphia • Cleveland • Chicago • St. Louis • New York • Boston • Pittsburgh • Detroit

This is the HUNDREDTH YEAR That Swindells Have Been Making Glass in Baltimore . . . .

WILLIAM E. SWINDELL started making glass in Baltimore back in 1847—and ever since successive generations have carried on in this business.

That bit of history is important to *you*—because glass making is an art as well as a business, and the accumulation of past experience and experiments, knowledge and know-how is at your service when you bring your bottle problems to Swindell. As a matter of fact, many a Swindell worker can boast a father and grandfather who, in their day, were on the Swindell payroll and passed their secrets of peculiar skills from father to son.

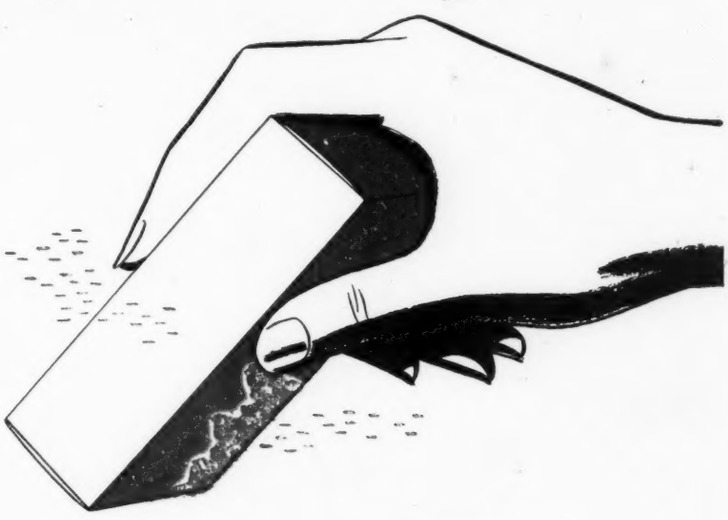
Whether you need hand made or machine made bottles, private mould or stock models, you can profit by Swindell's outstanding reputation as fine bottle makers.

SWINDELL BROTHERS, Inc.
BALTIMORE 30, MARYLAND
200 FIFTH AVENUE, NEW YORK ROBERTO ORTIZ • HAVANA, CUBA

Swindell

GIVE YOUR CARTON THE *Final* SELLING PUNCH!

The acid test of any carton is its *Selling Punch*—
a combination of distinctiveness and
attractiveness that literally shouts "Buy Me!"
A. C. M. Clay Coated Cartons give you
maximum Selling Punch. Their pure white,
velvet-smooth surface, produced
by an exclusive, continuous process, enhances
any design and assures brilliant, colorful
reproduction in either letterpress or lithography.
A. C. M. Clay Coated Cartons
protect and *sell* your product better.



AMERICAN COATING MILLS, INC.

Main Offices and Plants—Elkhart, Indiana.
Branch Plant—Chicago.
Branch Sales Offices—Wrigley Bldg., Chicago;
271 Madison Ave., New York City.
Subsidiary—Modern Packages, Inc., Memphis, Tenn.

WHY A. C. M. CARTONS ARE BEST:

Whiter board—
velvet-smooth surface—more rigid—
tougher—better folding qualities—
greater luster and brilliance—
perfect reproduction in either letter-
press or lithography.

The Secret is in the SURFACE

AMERICAN COATING MILLS

A.C.M. CLAY COATED CARTONS AND CARTON BOARD

"A BEAR FOR PUNISHMENT"

The Sheffalloy *Sheffield Process* Tube is developed to a degree of pliable toughness which we believe has never been equalled in the history of Collapsible Tube Manufacture. It is indeed "a bear for punishment" . . resisting hard-handed bending, folding and squeezing day after day, until the last portion is used! It's that *extra* product protection, plus the unusual excellence of our decorations that causes so many of America's leading tube buyers to specify SHEFFALLOY *Sheffield Process* Tubes. Just write or call our nearest office. Let our capable collapsible tube field men give you every possible cooperation.

Sheffalloy
TRADE MARK REGISTERED
SHEFFIELD PROCESS
TUBES

NEW ENGLAND COLLAPSIBLE TUBE CO.

3132 S. CANAL STREET, CHICAGO 16 • NEW LONDON, CONN. • W. K. SHEFFIELD, V. P., 500 FIFTH AVENUE, NEW YORK 18
THE WILCO COMPANY, 6800 McKINLEY AVE., LOS ANGELES 1

There's the glitter of Sunlight in
Champion Kromekote
There's big attention value in the way light dances and shimmers on high finish Champion Kromekote. Its glossy surface has that look of quality. Manufacturers and advertisers find almost unlimited uses for this patented coated paper: as a package wrap for quality products like perfume, jewelry, pen and pencil sets, toiletries, confections; for fine advertising folders and inserts, menus, labels, programs, catalogue and magazine covers, post cards and calendars. Wherever fine printing serves American business, you find Champion Kromekote aiding sales.
THE CHAMPION PAPER AND FIBRE CO., Hamilton, O.
District Sales Offices: New York · Chicago · Philadelphia · Cleveland · Boston
St. Louis · Cincinnati · Atlanta

controlled quality
from forest to finished product . . .

CORRUGATED AND SOLID FIBRE BOXES
FOLDING CARTONS
KRAFT GROCERY BAGS AND SACKS
KRAFT PAPER AND SPECIALTIES

GAYLORD CONTAINER CORPORATION General Offices: SAINT LOUIS

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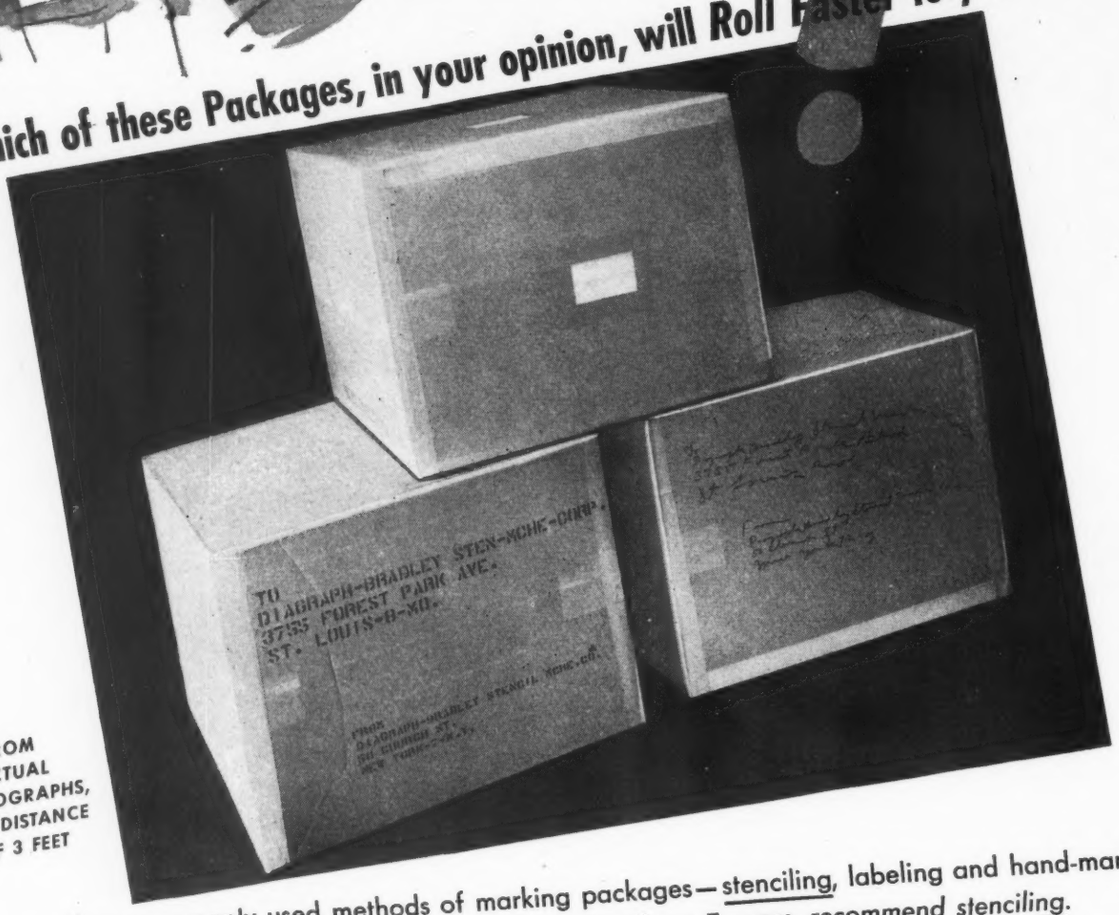
City • Bogalusa • Milwaukee • Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro

Which of these Packages, in your opinion, will Roll Faster to your customer?



FROM ACTUAL PHOTOGRAPHS, AT A DISTANCE OF 3 FEET

These are three commonly used methods of marking packages—stenciling, labeling and hand-marking—common carriers, such as the railroads, truckers and Railway Express, recommend stenciling.

Why take a chance—rain and damp weather obliterate type or hand written labels—avoid hand addressed mistakes—illegibility—labels coming off—lost shipments—delayed shipments.

Stencil address your shipments to keep your packages out of the carriers' Lost Shipment Warehouse.

Stenciled Shipments Roll Faster

THE WORLD'S OLDEST AND LARGEST MANUFACTURER OF STENCIL CUTTING MACHINES

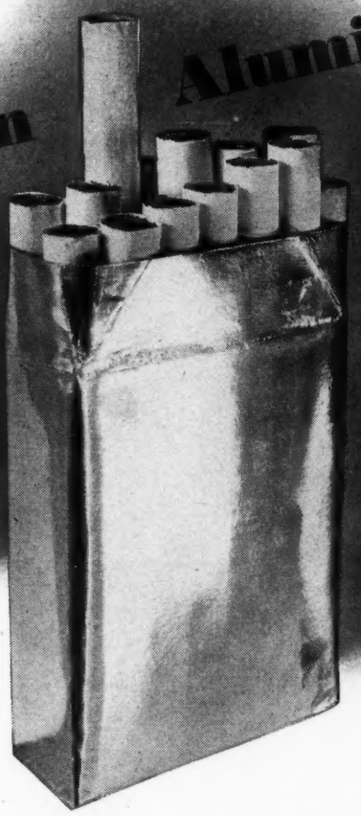
D.B. REG U S PAT OFF

DIAGRAPH-BRADLEY
STENCIL MACHINE CORPORATION
ST. LOUIS 8, MISSOURI

DISTRIBUTORS IN PRINCIPAL CITIES—SEE CLASSIFIED SECTION—TELEPHONE DIRECTORY—STENCIL CUTTING MACHINES

OVER 100 D-B ITEMS FOR THE SHIPPING ROOM

Back in Aluminum Foil



Why? Because cigarette manufacturers, who had to get along without it during the war, have found they need aluminum foil for

BETTER PROTECTION!

Able to reincorporate aluminum foil in their packaging operation fast and simply, cigarette manufacturers were among the first to put it back in their packages. Other former users . . . in the food, drug, confection, and other industries . . . are following suit as fast as possible for the same reason.

BETTER PROTECTION!

For *better quality* aluminum foil, they are using ALCOA ALUMINUM FOIL, manufactured by ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh, Pa. Sales offices in leading cities.

ALCOA

ALCOA ALUMINUM FOIL

You specify the services

WHEN YOU SPECIFY

FLEXIBLE PACKAGING

MEMBER FLEXIBLE · PACKAGING · fpi · INSTITUTE ·

Allied Paper Bag Corporation, Baltimore, Md.
American Bag & Paper Co., Philadelphia, Pa.
The American Paper Goods Company, Kensington, Conn. and Chicago, Ill.
Arkell & Smiths, New York, N. Y.
Arlette, Inc., Bloomfield, N. J.
Beier & Company, Chicago, Ill.
Bemis Bros. Bag Co., Indianapolis, Ind.
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Custom-Made Paper Bag Co., Long Island City, N.Y.
Diaphane Bag Corporation, Philadelphia, Pa.
Dixie Wax Paper Co., Memphis, Tenn. and Dallas, Texas
The Jaite Company, Jaite, Ohio
Kehr Paper Products Co., Philadelphia, Pa.
Kellogg Container Division, United States Envelope Co., Springfield, Mass.
Kennedy Car Liner and Bag Company, Inc., Shelbyville, Ind.
Marathon Corporation, Menasha, Wis.
Mehl Manufacturing Company, Cincinnati, Ohio
Monoca Bag & Mfg. Co., Inc., Toledo, Ohio
Moser Bag & Paper Company, Cleveland, Ohio
Oneida Paper Products, Inc., New York, N. Y.
Orchard Paper Company, St. Louis, Mo.
Paramount Paper Products Co., Inc., Philadelphia, Pa.
Pioneer Paper Bag Co., Los Angeles, Calif.
Thomas M. Royal & Co., Philadelphia, Pa.
C. E. Stevens Bros. Inc., Baltimore, Md.
Union Bag & Paper Corporation, New York, N. Y.
Western Paper Converting Co., Salem, Oregon

"MY PRODUCT is extremely hydroscopic, yet must survive long shelf life. Please suggest a package that will prolong saleability."

"Can you give me an attractive, inexpensive package that acts as a shield against light?"

"We'd like a package that maintains the freshness and flavor of dressed poultry, yet allows for high visibility."

These and similar requests for precision packaging reach members of the Flexible Packaging Institute every day. Manufacturers know that to meet today's competition, their products need containers that give them custom-built protection—containers designed to provide high shelf prominence, ease of use, and over-all economy.

When you select flexible packaging to help merchandise your product, you get the services of *a packaging engineer*. His extensive choice of materials enables him to provide the type and degree of protection required. His wide knowledge of operating methods helps him indicate the package form best suited to your equipment.

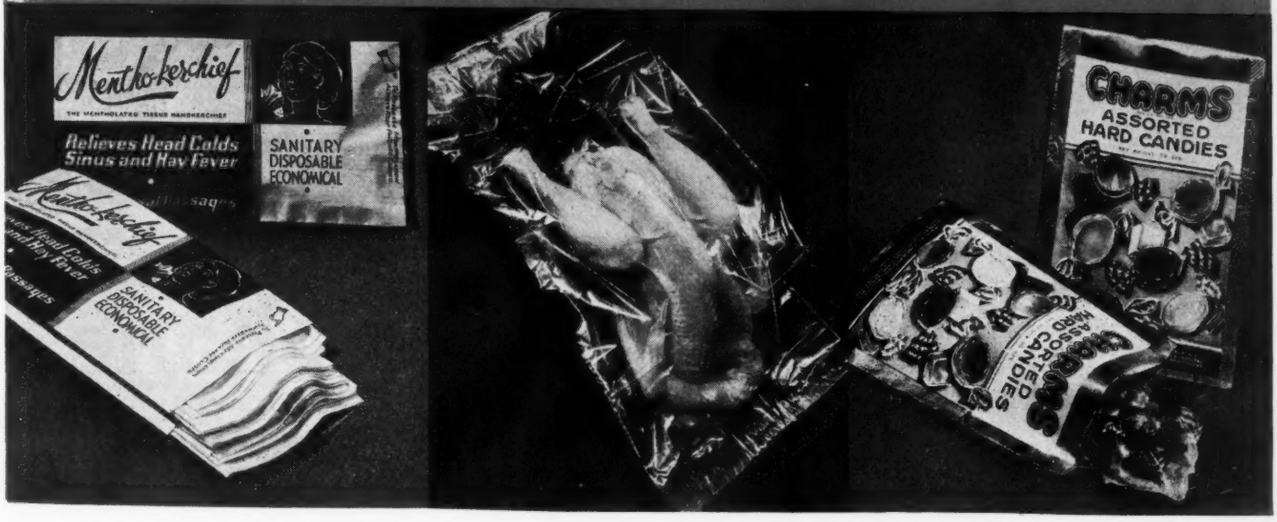
This packaging engineer is but one of nine specialists constantly working with you to give your flexible package the qualities you desire.

If a new or improved package will increase the marketing efficiency of any of your products, the members of the Flexible Packaging Institute are ready to help you. Simply write to the address below.

FLEXIBLE PACKAGING INSTITUTE
369 Lexington Avenue • • • • New York 17, N. Y.

of a PACKAGING ENGINEER

Fabricators offer you the help of this man (one of nine specialists) whose extensive choice of papers, films, foils, laminants, adhesives and inks assures custom-built protection for your product!



She's value-conscious. She wants to know the *facts* before she buys. She's the shopper on whom the future of your product depends.

Nothing is more convincing to her than the *sight* of your product. Retailers know that *transparent* Du Pont Cellophane packaging shows the shopper all she wants to see . . . size, type, color and quality.

It also answers her questions on sanitary protection—a subject in which she's vitally interested. She can *see* that the product has been kept clean and free from soilage . . . and she *knows* that moistureproof Cellophane safeguards the freshness and flavor of foods.

There's true packaging economy awaiting you in Du Pont Cellophane . . . sales-building transparency plus adequate protection at *lowest cost*.

Although the demand for Cellophane now exceeds the supply, we hope that the day is not far off when our converters and ourselves can again fill all your requirements. In the meantime, write for your copy of "The Post-War Food Dollar," an interesting study of the war's effect on food buying habits. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

DU PONT
REG. U.S. PAT. OFF.

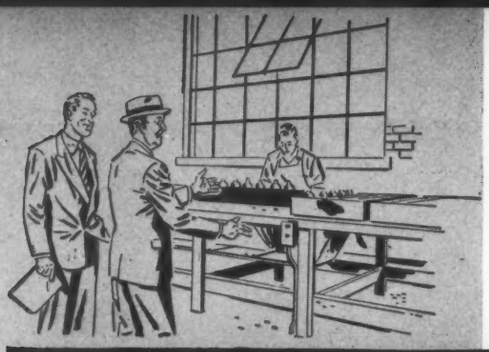
Cellophane

Shows what it Protects—at Low Cost

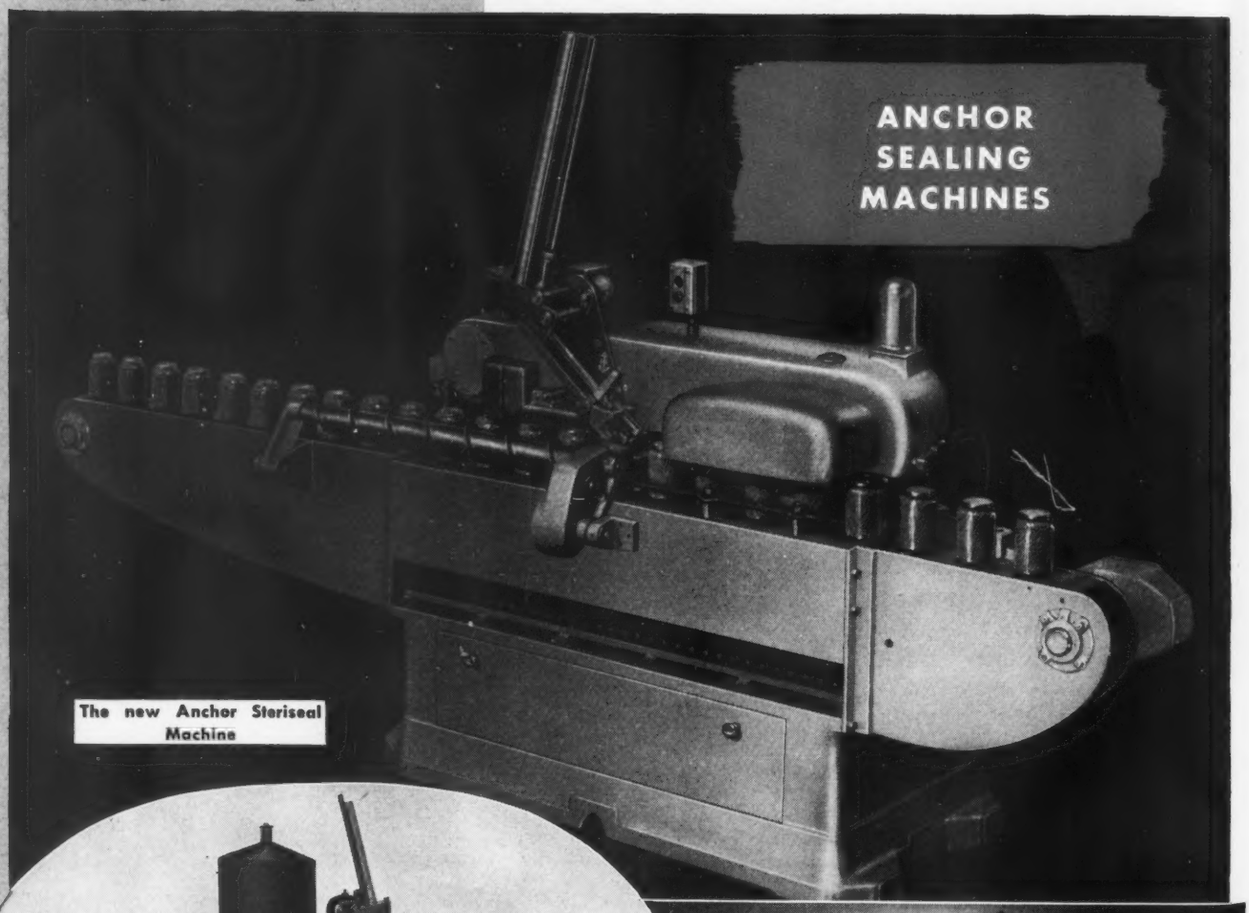
BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

ACME PAPER BOX COMPANY

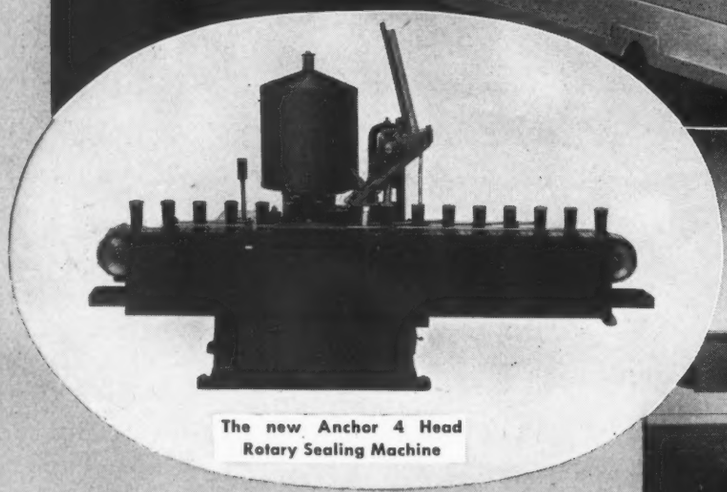
STATE AT SIXTIETH ST., CHICAGO 21, ILL. • ***designers*** • ***creators*** • ***manufacturers***



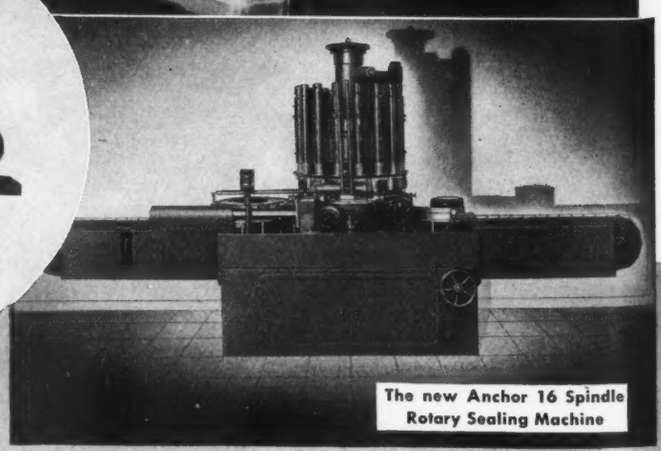
Complete Glass Pa



The new Anchor Steriseal Machine



The new Anchor 4 Head Rotary Sealing Machine



The new Anchor 16 Spindle Rotary Sealing Machine

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Packaging Service

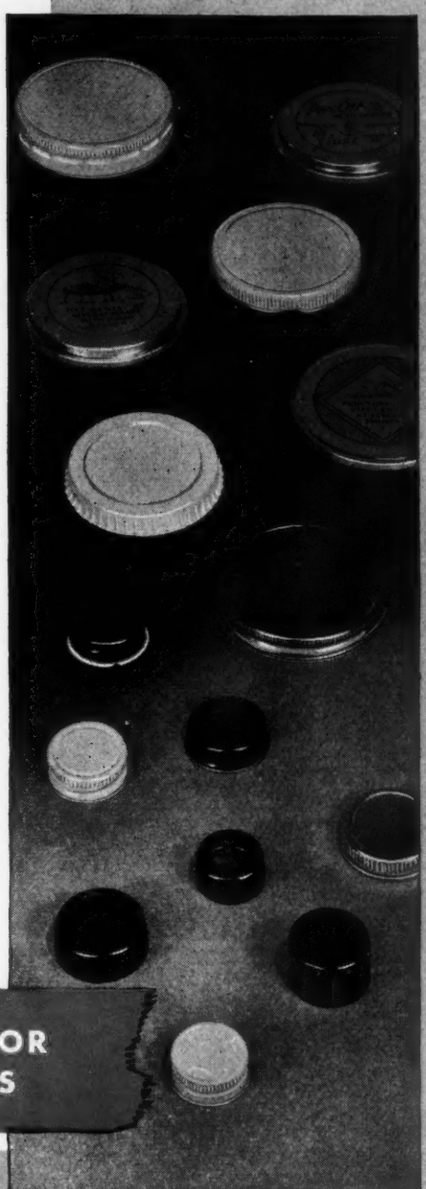
BY ANCHOR HOCKING

THROUGH the years Anchor Hocking has provided complete glass packaging service to packers and manufacturers. And today, more than ever, Anchor Hocking's quality products, increased facilities and services make for a valuable source for your packaging needs.

Anchor Hocking manufactures a complete line of highest quality, standardized Anchorglass Containers for every packaging need—for foods, drugs, chemicals, household and industrial products, liquors, beers, beverages and toiletries. Among the eleven types of Anchor metal airtight, vacuum, screw, lug and friction type closures and molded screw caps there is one best suited to your purpose—no matter what you pack or how you pack it. And Anchor Hocking's complete line of Anchor Sealing Machines—14 types in all—provide dependable airtight, liquid-tight applications as well as steam or mechanical vacuum seals, at speeds from 50 to 500 per minute.

The General Packaging Research Division offers the wide facilities of modern chemical and biological laboratories for your use—the Package Design Department can help you re-style your package for greatest sales effectiveness—the Engineering Department is ready to assist you in developing better, more economical production methods and routines—the Packaging Research Department can advise you on proper preparation, processing and methods.

Anchor Hocking's sales-service men are as near as your telephone—eager to help you as they have helped thousands of packers and manufacturers. And our plants are strategically located from coast to coast to provide the prompt service you require.



Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO

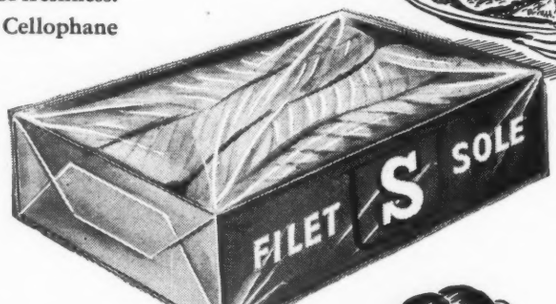
It's SYLVANIA for Cellophane

to protect cigarettes

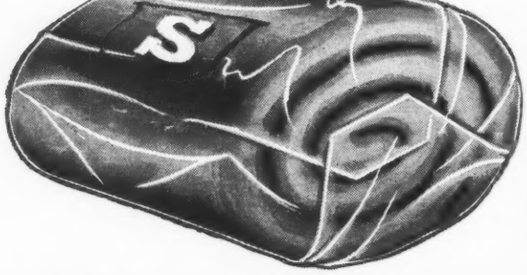
Tobacco, frozen foods, baked goods or confectionery... Each type of product requires a different type of packaging material—and there's a Sylvania Cellophane to meet their requirements! For this glistening wrap is more than beautiful. It is air, dust and moisture-proof... offers an impregnable barrier against loss of flavor freshness.

You can expect today's Sylvania Cellophane to look better and give better protection than ever before—protection that will be available for even more products in the coming months.

...and sole



...and jelly roll!



SYLVANIA CELLOPHANE

Made only by SYLVANIA INDUSTRIAL Corporation

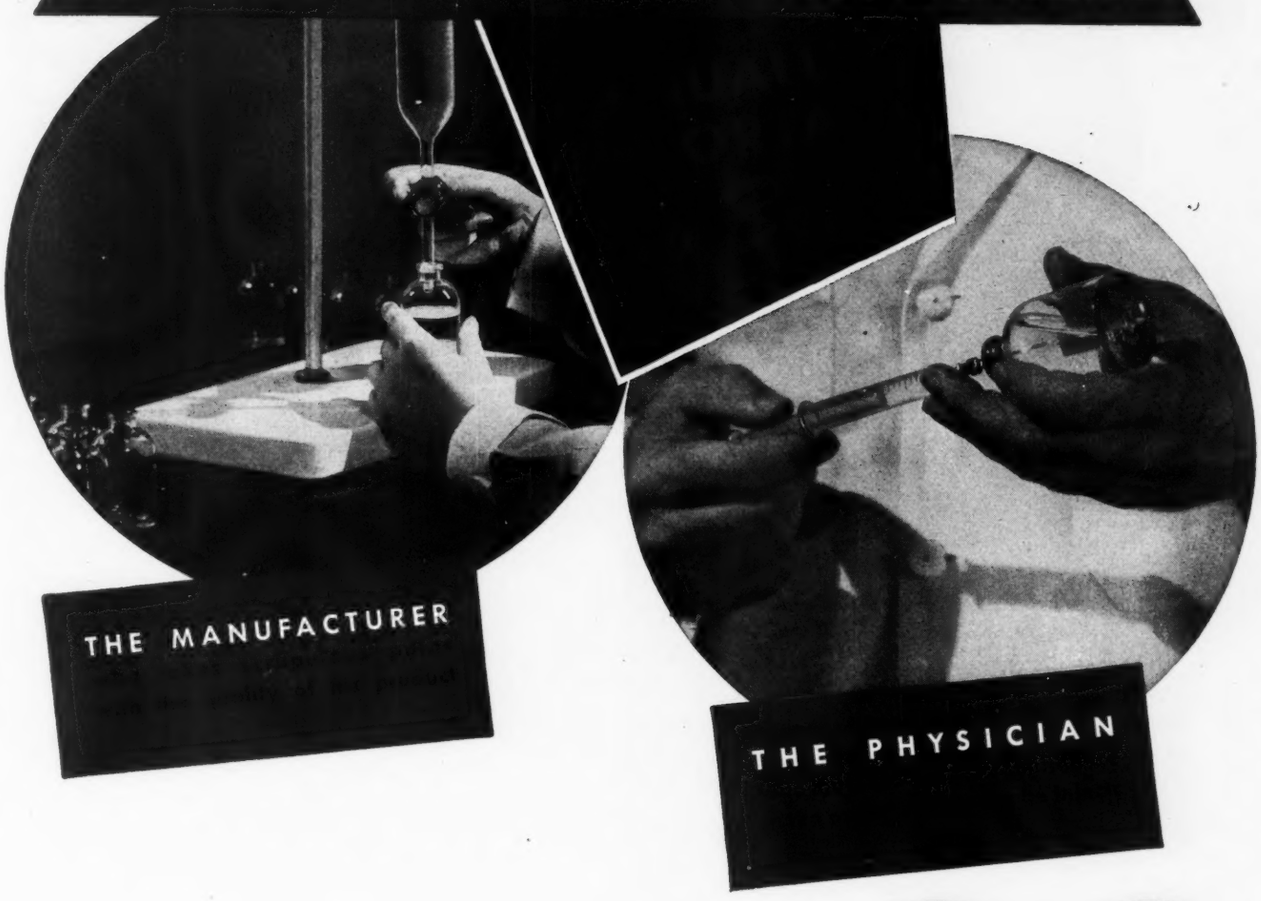
Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 122 E. 42nd St., New York 17, N.Y. ★ *Plant and Principal Office:* Fredericksburg, Va.

SYLVANIA CELLOPHANE

•Registered Trade Mark

KIMBLE NEUTRAGLAS CONTAINERS



KIMBLE NEUTRAGLAS (N-51A) resists chemical attack and solvent action and provides maximum protection for the manufacturer's quality on which the physician relies.

For Assurance

STANDARDIZE NOW on Kimble Ampuls, Serum Vials, Serum Bottles and pharmaceutical containers made of NEUTRAGLAS— *Clinically Safe.*

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY • • • VINELAND, N. J.

NEW YORK • CHICAGO • PHILADELPHIA • BOSTON • SAN FRANCISCO

Mrs. West shouldn't worry you!

Or should she?

SHE'S TYPICAL of the choosy, shop-wise postwar buyer, Mrs. West.

There are three questions you must answer about your product's container before you can call her and a legion of other women, "Customer."

1. Is my container attractive?

2. Does it have the eye and purse appeal her buying habits demand?

3. Is it efficient as well as interesting?

If you can answer them with "yes," you'll help her select *your* package . . . not a competitor's.

No need for worry

All three of your answers can be "yes," simply by planning ahead *now* for the postwar market.

Within reaching distance of your nearest telephone, American Can Company is waiting to lend a hand with your packaging problems . . . to help you put your product in a container that has kept pace with every latest packaging development.

We've been doing this job for 45 successful years now, helping manufacturers in devising interest-demanding packages.

If you will call our main office or ask our representative, we'll be ready to work with you and for you.

American Can Company

CANCO

New York Chicago San Francisco

World's Largest Manufacturers of Fibre and Metal Containers

Some Texcel Tape in place of string

Gives packages more zip and zing!

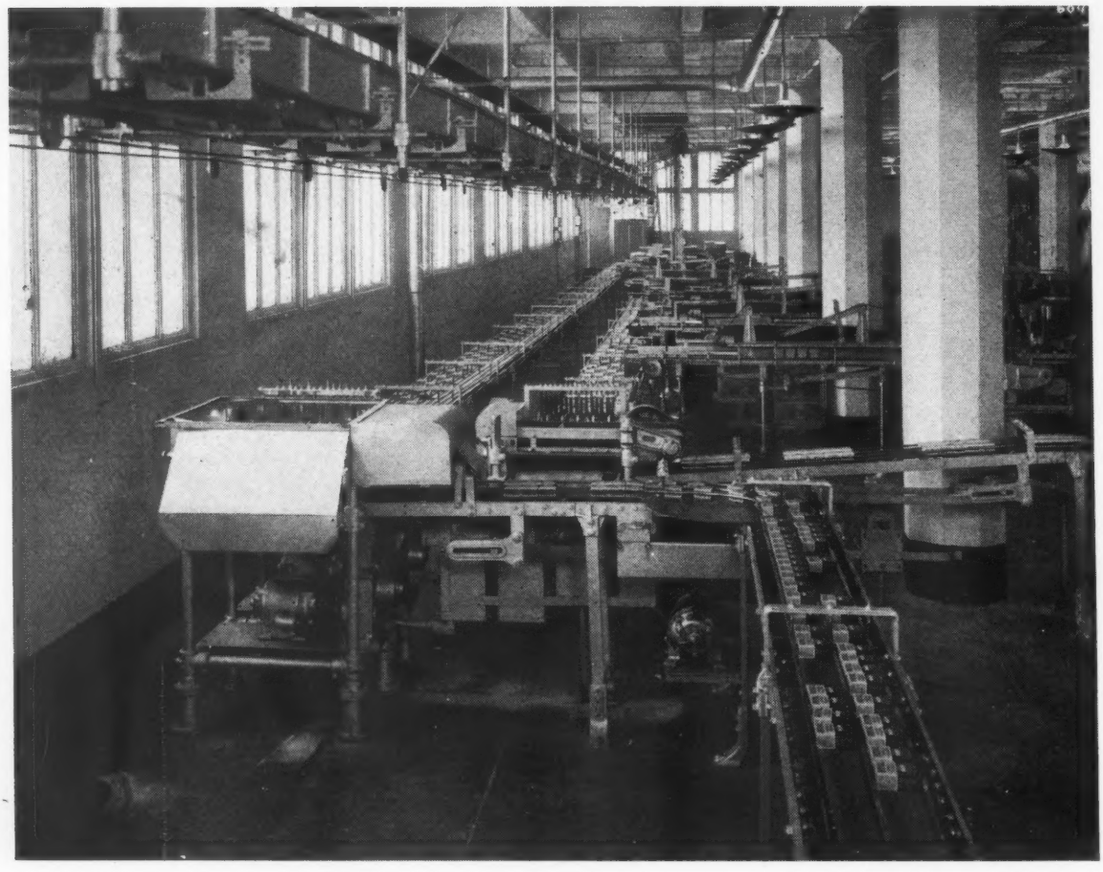
To streamline all your packages,
To wrap, protect and seal,
Use Texcel Tape – so crystal-clear
It's tops in sales appeal!

"TEXCEL" REG. U. S. PAT. OFF.

INDUSTRIAL TAPE CORPORATION

New Brunswick, N. J.

Another Standard-Knapp Special!



The photograph shows a complete installation of Standard-Knapp equipment. A number of packing machines deliver their output to a collector line. A half-dozen packing lines are thus geared to one collecting mechanism which delivers packages in any desired position to any given point in the proper order. At the end of the line packages are handled by a bundling machine or one of Standard-Knapp's case packers.

This is another illustration in the series showing special Standard-Knapp packaging equipment. We design and build equipment to meet every type of package production requirement. Standard-Knapp equipment, in any automatic operation, is top quality for performance, low unit cost, and minimum maintenance.

Our engineers will gladly consult with you on your production requirements.

STANDARD-KNAPP CORP.

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES

FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue, NEW YORK 22, N. Y. | 221 North LaSalle St., CHICAGO 1, ILL. | 145 Public Square, CLEVELAND 14, OHIO | 300 Seventh Street, SAN FRANCISCO 3, CALIF.

420 S. San Pedro Street, LOS ANGELES 13, CALIF. | 3224 Western Avenue, SEATTLE 99, WASH. | 1208 S. W. Yamhill Street, PORTLAND 5, OREGON | Paul Brown Building, ST. LOUIS 1, MO.

Windsor House, Victoria Street, LONDON, ENGLAND

Looks have a lot to do with what the user thinks of your tubes . . . and the contents.

You won't be let down by an Alcoa Aluminum Tube. Here's why . . .

The processing of Alcoa Aluminum Tubes results in a clean, dry, oil-free surface that takes inks perfectly. The inks and enamels Alcoa uses are so flexible and tightly adhered that they withstand crushing and twisting without cracking, checking or flaking. Colors are stable. Every letter and detail of your design is sharp and clear.

Let us send you samples of some of the tubes we are producing for leading users. Compare them with your own for quality of color and detail. Write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Penna. Sales offices in leading cities.

FIRST IN

ALCOA ALUMINUM

ALCOA
ALUMINUM

For ADVERTISEMENT... IDENTIFICATION... INSURANCE... all at the same time

SEALS WITHOUT WATER

When a strip of this attractive, red-and-white, self-sealing, cellulosic tape is applied to a box containing McGregor Sportswear, several important things happen at once.

The authenticity of the merchandise is guaranteed to the ultimate consumer; the retailer is identified as an accredited distributor of the product.

The manufacturer's identity is doubly established—by the goods and by the tape label. That identity carries through to the consumer.

Both manufacturer and retailer enjoy an increased assurance of repeat sales.

FILMONIZE Printed Self-Sealing Tapes are custom-made to meet a great variety of specific needs. Name-cuts, trade marks, slogans or special messages are accurately reproduced in black, in colors, or in color combinations. The tapes can be of any width from half-an-inch to eighteen inches. Quantities may be as low as nine rolls at a time. Retailers welcome their use.

These tapes are quick and easy to use; they seal without water—hold securely. Precision methods of manufacture have now produced tapes that are a joy to use. The printing is sealed in under the surface—will not rub off. The tape is good-looking—an asset to your product.

We invite the opportunity to discuss the many FILMONIZE Self-Sealing Tapes which are made for industrial, commercial and home use. We have the facts. Telephone or write us today!

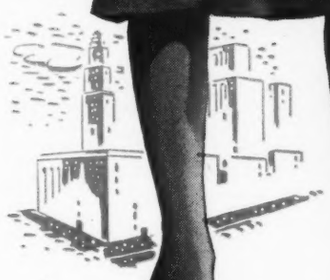
Filmonize
TRADE MARK REG.
SELF-SEALING TAPES

INTERNATIONAL PLASTIC CORPORATION
Morristown New Jersey

IS YOUR PRODUCT *Style* CONSCIOUS?

The boot, shoe and slipper industry buys nearly a half billion* set-up boxes every year. Yes, it's a lot of boxes and it has almost 100% coverage of the entire industry. Long a favorite for safe, convenient shipping and shelf display, the industry expects to make their boxes even more sales conscious in a business which expects to expand 20% in two years over prewar levels.

From fancy slippers in gold, silver and brilliant color cushioned in velvet boxes, to the heavy duty work shoes, the set-up box has enabled the dealer to emphasize finer grade footwear, better packaged. Manufacturers at the present time are planning greater use of color and product identification for greater take-home value.



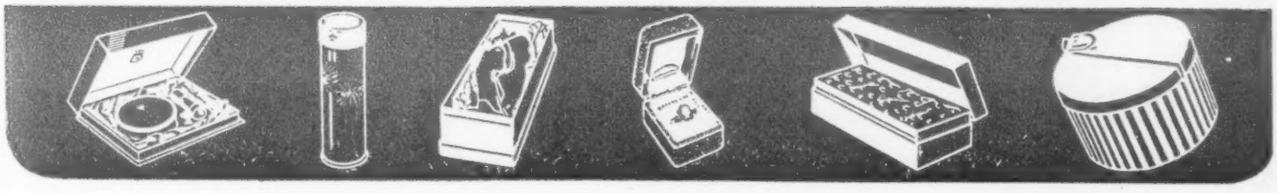
* Consult your nearest paper box manufacturer. Ask him for the latest packaging survey (Dept. 21), "Boot, Shoe and Slipper Industry".

NATIONAL PAPER BOX MANUFACTURERS
Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia 7, Penn.

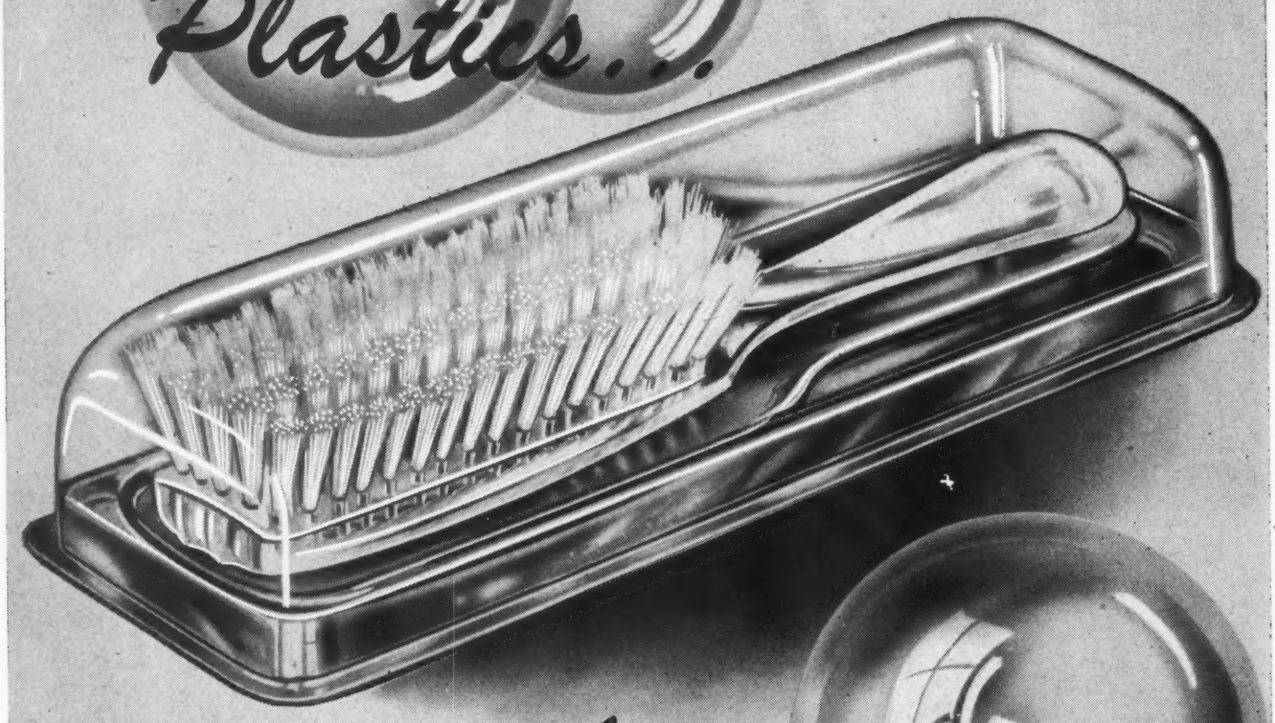
FOR INFORMATION OR SERVICE • CONSULT YOUR NEAREST SET-UP BOX MANUFACTURER



Your Product...

FORM-FITTED IN

Plastics...



All Shapes
All Protected
All Textures

ALL manner, shapes and textures of eye-attracting packages can be and are being produced by us in plastics. And plastics then sells the product right through the form-fitted covers. The National Transparent Plastics Company, through war-time research and experience, has developed Plastic Packaging so that it now can compete successfully in price with other types of boxes, yet exceeds all in sales appeal.

NATIONAL TRANSPARENT PLASTICS COMPANY, INC.

SPRINGFIELD **MASSACHUSETTS**

Bar, Bag or Family Size, Your Candy Has a SWEET LOT OF COMPETITION!

Traver **wraps—multi-printed transparent film or foil, are designed to go beyond display and protection of product—they have Sales Punch that spells Profit! Send us your present package for analysis and recommendations—without any obligation!**

OX LITE

PROTECTIVE PARTITION DIVISION
404 North Sacramento Blvd., Chicago 12, Ill.

Traver
CORPORATION

Convertors of
CELLOPHANE, GLASSINE,
FOILS, ACETATES,
PEARLON PLASTIC FILMS,
PROTECTIVE PAPERS

358-368 West Ontario Street • Chicago 10, Illinois

The Young OLD MASTER.

When he was only 22 years old, Antonio Stradivari produced the first of the famous violins that bear his name. His craftsmanship set a new standard of excellence that was attained in each of the 1100 instruments he made during his lifetime. The artistry which caused all of his creations to be of the same uniform and superior quality, stemmed from his attention to the minutest details of workmanship. The rich, full-bodied tone so characteristic of all Stradivari has been attributed not only to his design but to a secret varnish he used. Soft in texture, it produced a mellow finish shading from orange to red. Today, only about 600 of these violins are known to exist, and 300 of these are in America.

In the field of glass containers, Carr-Lowrey too has established a reputation for superiority. Strict adherence to exacting standards and constant attention to detail have made Carr-Lowrey an outstanding name among those who know and appreciate quality in commercial glass containers.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD.
New York Office: 500 Fifth Avenue
Chicago Office: 1502 Merchandise Mart

PAX TAPE QUALITY IS BETTER FOR BETTER PACKAGING

Packaging designers are partial to PAX TAPE because of its uniform dependability in the solution of many modern packaging problems.

PAX TAPE seals instantly without moistening. It sticks stronger, lasts longer.

Use PAX TAPE for permanent anchorage on "hard-to-seal" packages and containers; and for many types of protective wrapping. PAX TAPE smartens up the package while doing an effective utility job.

TRY PAX TAPE

The BETTER Tape

Transparent and in Colors

THE COFAX CORPORATION • Lynbrook, N. Y.

25 Years of Dependable Service

Established 1921

Reg. U. S. Pat Off.

MULTISTAMP

STENCIL DUPLICATOR

MANUFACTURED ONLY BY THE MULTISTAMP CO., INC. NORFOLK, VIRGINIA

THE COMPLETE ALL-PURPOSE PRINTING OUTFIT... NO TYPE TO SET!

PRINTS ON WOODEN BOXES, CARTONS, SHIPPING TAGS AND LABELS, CLOTH

...AS WELL AS ON CARDS, PAPER, ON OR INSIDE BOOKS OR FILES, ETC.

1 Rubber Stamp Size for Shipping Tags, Labels, Cards, etc.

The No. 1 MULTISTAMP is a flexible rubberless hand stamp that takes the place of rubber stamps . . . and has the valuable advantage of permitting copy changes to suit your needs. Prints up to 5 lines of type, 3 in. long. MULTISTAMP eliminates re-typing and slow hand-addressing—it has a thousand uses around any office or shipping department.

INCLUDES: Twenty-five Stencils, an ample supply of special MULTISTAMP ink, ink brush, writing board and a stylus pen. Case measurements: 6¾ in. wide, 4½ in. deep, 3¾ in. high. Weight: 2 lbs.

$7.50

F.O.B. FACTORY

COMPLETE (NON-MECHANICAL) OUTFIT

3 Post Card Size for Larger Tags, Labels, Notices, etc.

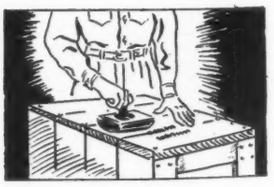
The No. 3 MULTISTAMP is the "Rocker Type" Duplicato that prints on practically anything. Size 5¼ in. long by 3¼ in. wide, a single stencil can contain up to 32 lines of type. No experience or skill is required to operate the MULTISTAMP.

INCLUDES: One-half quire of stencils, ample supply of special MULTISTAMP ink, ink brush, writing board, stylus pen, type cleaner, bottle of correction varnish. Packed in a handy, sturdy case. Case measurements: 7½ in. wide, 6 in. deep, 6¼ in. high. Weight: 4 lbs.

$15.00

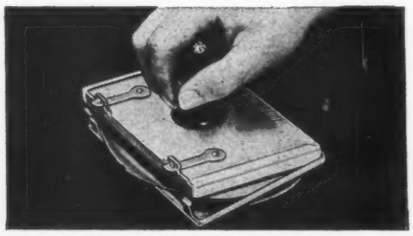
F.O.B. FACTORY

COMPLETE (NON-MECHANICAL) OUTFIT

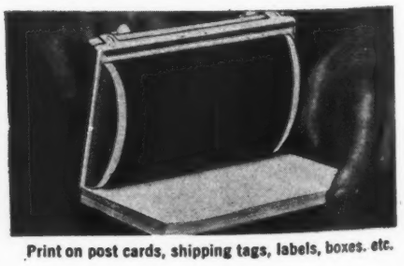


Every MULTISTAMP Outfit is Guaranteed for 5 Years! Write for Illustrated Folder Showing Other Complete Outfits for $25 to $82.50.

Just type, write, draw or trace on the stencil



Snap it on MULTISTAMP. Quick, automatic, touch no ink



Print on post cards, shipping tags, labels, boxes, etc.

Thousands of food products owe their shelf-life freshness and taste values to protective packaging papers by
RHINELANDER

CEREALS OWE THEIR TASTE-LIFE TO PROTECTIVE PACKAGING

America's breakfast has become a national institution. Not just another meal, but the scientific result of years of intensive study and development in food laboratories throughout the Nation. Packaged nutrition in a wide variety of forms is providing insurance against dietary deficiencies and is working labor-saving wonders in the kitchen. The successful accomplishment of such food purveyance would be impossible without the long-life protection offered by modern packaging papers. Obviously, sanitation and preservation are prime essentials. Maintaining taste values is also a first consideration and necessitates holding at peak perfection the wholesome and appetizing features inherent in the fresh product. Rhinelander packaging papers are world famous for thus safeguarding edibles. They present a wide range of essential characteristics suited to withstand varying conditions of storage, transportation and shelf-life. Whether your product requires a positive barrier to moisture/vapor transmission, a covering possessing high wet-strength, protection against oil or grease transfer or simply needs security from dirt and dust during store display and handling, there is a grade and weight best suited for the purpose in Rhinelander's family of protective papers.

RHINELANDER *Protective Packaging* PAPERS

Moisture/Vapor-Proof Coated Glassines
Wet Strength Glassines
Wet Strength Greaseproof
Heat Sealing Coated Glassines

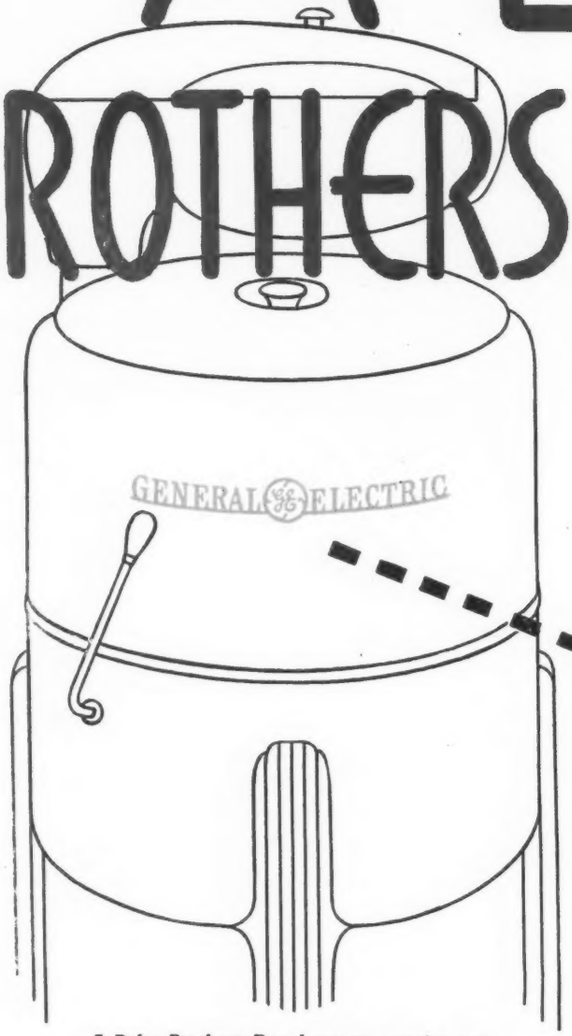
Lard and Shortening Liners
Packing Industry Wrappings
Genuine Greaseproof
Specialty Bag Papers

Confectionery Papers
Cereal Wrapping Papers
Coffee Bag Papers
Cracker Box Liners

Laminated Greaseproof Papers
Wax Laminated Glassine
Greaseproof Innerwraps
Opaque Label & Bag Glassine

RHINELANDER PAPER COMPANY • MILLS AT RHINELANDER, WISCONSIN, U.S.A.

PALM BROTHERS *Decals*



EYE-APPEAL
PERMANENCY
ECONOMY

A Palm Brothers Decal means greater eye appeal — assures quick brand recognition.

See for yourself! Samples and individually designed sketches submitted without obligation.

Write today for Bulletin M-100.

THE PALM BROTHERS *Decalcomania Co.*

CINCINNATI..12...OHIO..U.S.A.

10 YEARS IN THE MAKING

Here Next Month!

THE GREATEST ACHIEVEMENT *IN* MULTI-COLOR

STANDARD *SPEEDRY* ROTOGRAVURE

by

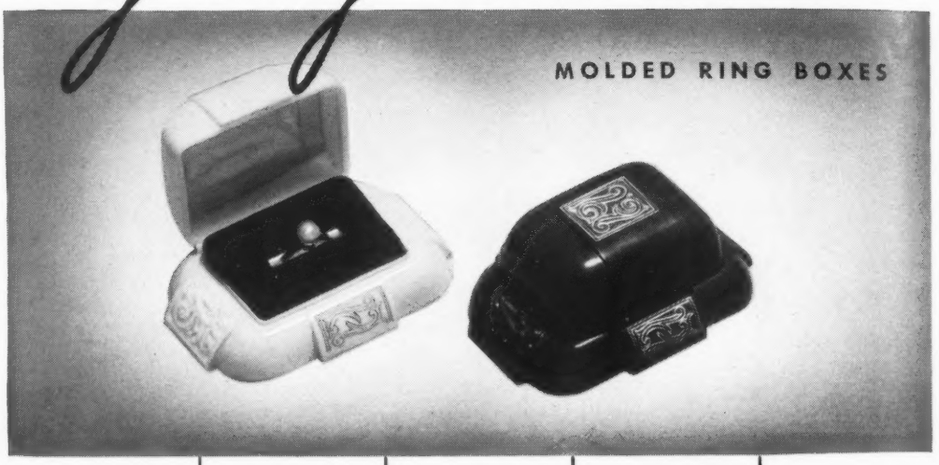
CHAMPLAIN

STANDARD ROTOGRAVURE

CHAMPLAIN COMPANY, INC. • 88 LLEWELLYN AVENUE, BLOOMFIELD, N. J.

Telephone • BLOOMFIELD 2-7350

PLASTICS IN THE *Packaging Field*



OTHER TYPICAL APPLICATIONS

PHENOLIC

Gift Box

Sewing Kit

Tool Set

Razor Set

Game Set

THERMOPLASTIC

Cosmetic Kit

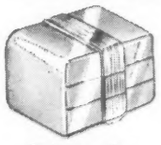
Capsule Container

Shaving Soap Bowl

Perfume Set

Watch Box

UREA


Stationery Box

Case for Glasses

Candy Box

Powder Box

Jewelry Box

To reach a sound conclusion to your problem in plastics consult the skilled technicians—engineers and designers—of the General Electric Company. For advice on the successful application of plastics materials using all available processes of manufacture, write Section P-31, General Electric Company, One Plastics Avenue, Pittsfield, Mass., or call the General Electric Plastics Divisions' office nearest you.

A G-E PLASTICS TECHNICIAN **KNOWS** PLASTICS

GENERAL ELECTRIC

P-D-31

"A bag of fruit juice, please . . ."

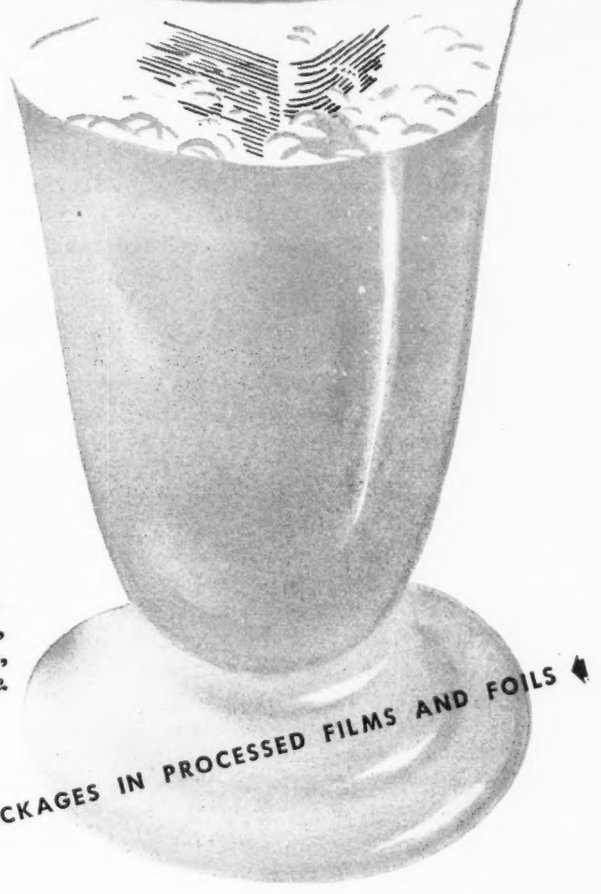
• "Yes, indeed!" Tough Dobeckmun "Tritect" laminated cellophane bags guard all the natural flavor and goodness from tree to table.

Hand-reamed, the juice is packed in "Tritect" bags, heat-sealed, quick-frozen and boxed—all in a matter of minutes. Nothing is added, nothing taken away. All the benefits of fresh juice are retained in this attractive package which is easy-to-store, easy-to-stack, easy-to-sell.

Preserving fresh fruit juices for Leavell's Pure Juice Company, Pico, Calif., is just another example of a tough problem solved by practical Dobeckmun Service.

Other Dobeckmun packages include plain or printed cellophane bags, machine-applied printed film overwraps and "Metalam" laminated foil for extra protection.

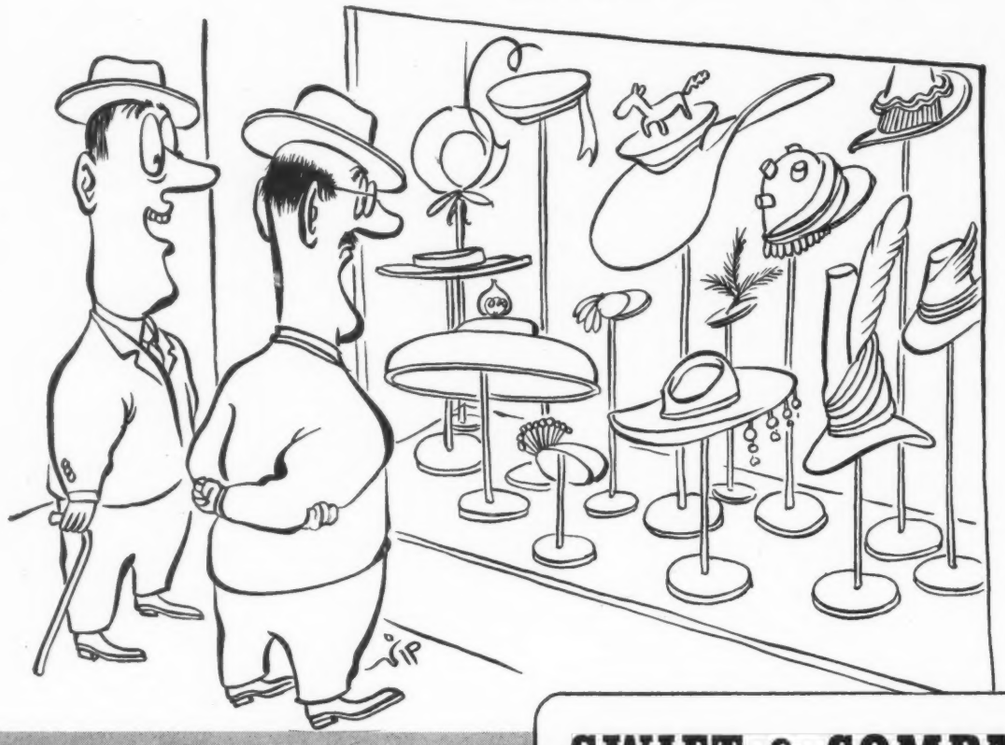
Dobeckmun technical and research facilities are at your service—backed by years of packaging pioneering. Ask for samples and suggestions, without obligation. *The Dobeckmun Company, Cleveland 1, Ohio. Branches in Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, San Francisco and Seattle. Representatives everywhere.*



DOBECKMUN

SELF-SELLING PACKAGES IN PROCESSED FILMS AND FOILS

"That reminds me,
Swift makes *all kinds* of adhesives!"



And we want to remind *you* that Swift's 1197S is back from the wars!

This *tough* synthetic "war" resin is now available for civilian uses. It's a really efficient, fast-setting cold adhesive.

1197S was used for sealing millions of military cartons and fibre containers. And the same rugged characteristics that enabled it to hold up under rough field conditions, long sea voyages, and varied climates, are ready to serve you now in performing your toughest highest-speed jobs.

Swift's 1197S Adhesive machines perfectly and adheres to practically all surfaces. It is chalk white, highly fluid and moisture-resistant, strong and absolutely non-crystallizing. It's mold proof, vermin proof, bacteria proof, and unaffected by cold or heat.

You're invited to send for ten gallons at the fifty-gallon drum price of 26 cents a pound (slightly higher on Pacific Coast and in Canada). It's returnable at our expense if it doesn't do your job *better*.

Write us for recommendations for* ANY *sticking job

SWIFT & COMPANY
GLUE DEPARTMENT **CHICAGO 9, ILLINOIS**

Factories: Chicago, Illinois · Harrison, New Jersey
South San Francisco, California
East Cambridge, Massachusetts · Omaha, Nebraska
St. Joseph, Missouri · Kansas City, Kansas
Fort Worth, Texas · North Portland, Oregon

In Canada:
Swift Canadian Company Limited, Toronto, Ontario

SWIFT MAKES ALL ADHESIVES

Dextrine Adhesives • Dry Animal Glue
Liquid Animal Glue • Flexible Animal Glue • Pastes
Rubber Emulsions • Synthetic Resin Emulsions

For all uses, including:

Carton sealing • Case sealing • Mountings • Set-up boxes
Folding boxes • Flexible coatings • Bottle labeling
Can labeling • Laminating • Leather goods
Loose-leaf binders • Magazine coverings • Padding
Paper sizings • Remoistening • Tube winding
Woodworking — many others

For your packaging material— if you want these properties:

TASTELESS, ODORLESS, NON-TOXIC

FLEXIBLE AND TOUGH AT LOW TEMPERATURES

CHEMICALLY INERT

HEAT-SEALS READILY

LIGHT WEIGHT
(Specific Gravity 0.92)

KEEPS MOISTURE OUT
(Permeability: In 3 mils thickness 30 grams/100 sq. meters/hour)

. . You'll want to consider

Du Pont POLYTHENE

Polythene, one of the most versatile of the Du Pont plastics, is now commercially available for the first time for civilian uses as a packaging material. Developed during the war, it has done, and done well, a variety of war tasks—among them, serving as watertight containers for shipping guns and pistols. Polythene can be injection- or compression-molded, extruded or calendered. Polythene is also available in a wide range of colors. For working samples and complete data on Polythene, write E. I. du Pont de Nemours & Co. (Inc.), Plastics Dept., Arlington, N. J.

DU PONT MANUFACTURES POLYTHENE MOLDING POWDER.
COMMERCIAL EXTRUDERS CONVERT POLYTHENE INTO THE FORM OF

SHEETS TUBES RODS FILAMENTS

DU PONT
REG. U. S. PAT. OFF.
Plastics

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

Custom-Built

TO YOUR NEEDS

New and unusual designs and fabrications . . . attractive special prints . . . sales appeal combined with usefulness, efficiency. This is modern packaging!

That's why you'll always find it profitable to use A. P. G. cellophane or glassine bags or envelopes — custom-built to fit the demands of your particular products.

- Amkleer Cellophane Bags and Envelopes. Special prints and sizes as well as all stock sizes — printed or plain. Bags in flat, square or satchel-bottom styles.

- Glassine Bags and Envelopes. Serrated-edge bags and die-cut envelopes in special prints and sizes as well as all stock sizes — printed or plain — of special papers or standard glassines. Bags — waxed or unwaxed.

- Envelopes. Open end, coin or Kensington clasp. Special prints and sizes as well as all stock sizes — printed or plain — in special papers or regular grades.

Our staff includes competent representatives experienced in handling the difficult or unusual packaging problem. They'll be glad to assist you at all times.

The American Paper Goods Co. OVER 50 YEARS OF SERVICE

KENSINGTON, CONNECTICUT CHICAGO, ILLINOIS

FLEXIBLE · PACKAGING · INSTITUTE · fpi

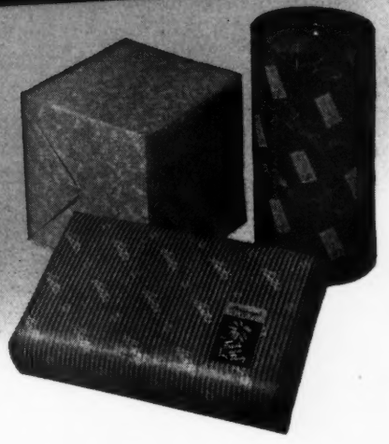
BUT...Has Your Package Sales Appeal?

THILCO PRINTED & EMBOSSED PAPERS

MODERN packaging engineers demand more than protective qualities in product wraps. They demand decorative effects for *eye-appeal* and *buy-appeal* because each package is a crucial advertisement that should individualize and build prestige for its product or its company.

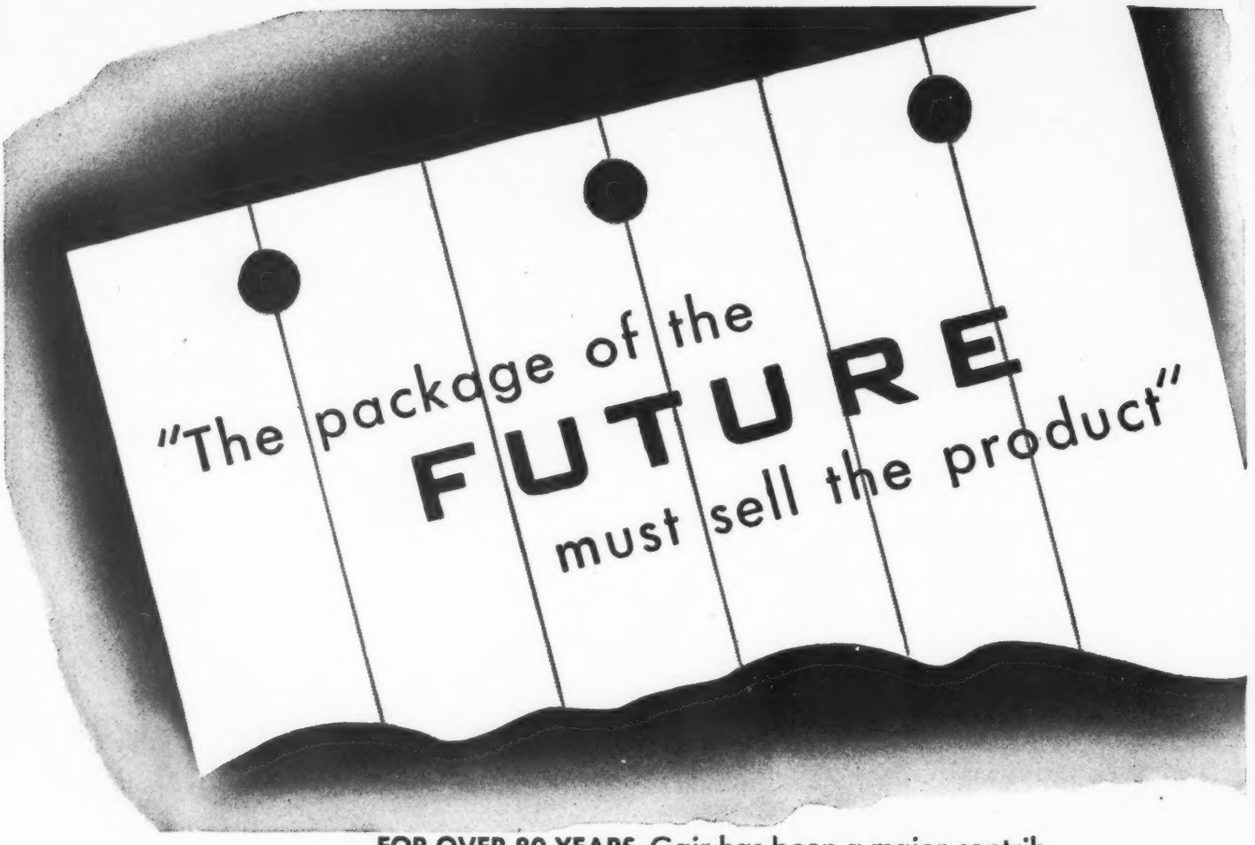
You can enhance the sales value of your products by using Thilco printed and embossed wrappings — As a means of attracting the consumer's eye under severe competitive conditions — as a means of pleasing dealers and consumers — and as a valuable aid for inducing continuous use and repeat sales. You can do all this economically and without sacrifice of the protective qualities required by your product.

Thilco decorative papers include M.G. Krafts, Glassines, Greaseproofs, Waxed and Thermo-plastics and Waterproof Asphalts. Most of these can be had with printing or embossing to your own specifications. Our design and engineering department will be glad to help you with your problems.

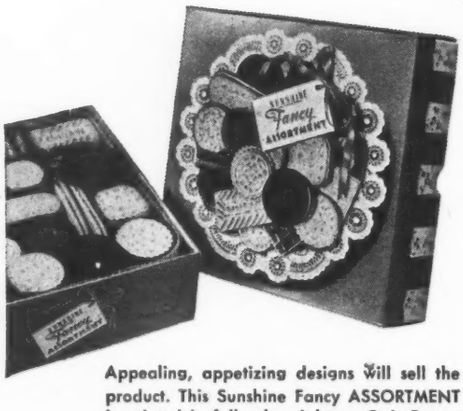


THILCO *Functional* PAPERS

THILMANY
PULP & PAPER COMPANY
KAUKAUNA · WISCONSIN



FOR OVER 80 YEARS, Gair has been a major contributor to the art of packaging. Many of the great industries of America and the world have turned to Gair to solve their packaging problems. Many an obscure product has achieved international distribution due to the ingenious packaging ideas of Gair — from the cracker barrel and hoop skirt era to frozen foods. The principles of packaging that are meeting with rigid war-time standards will be utilized in packaging everything from pencils to plow shares. Send your present and postwar packaging problems to Gair.



Appealing, appetizing designs will sell the product. This Sunshine Fancy ASSORTMENT is printed in full color right on Gair Patent coated paper board. Another famous Gair design and product. Write for Printers' Ink article by Egmont Arens industrial designer in which this Package appears.

SAVE GAIR WASTE PAPER

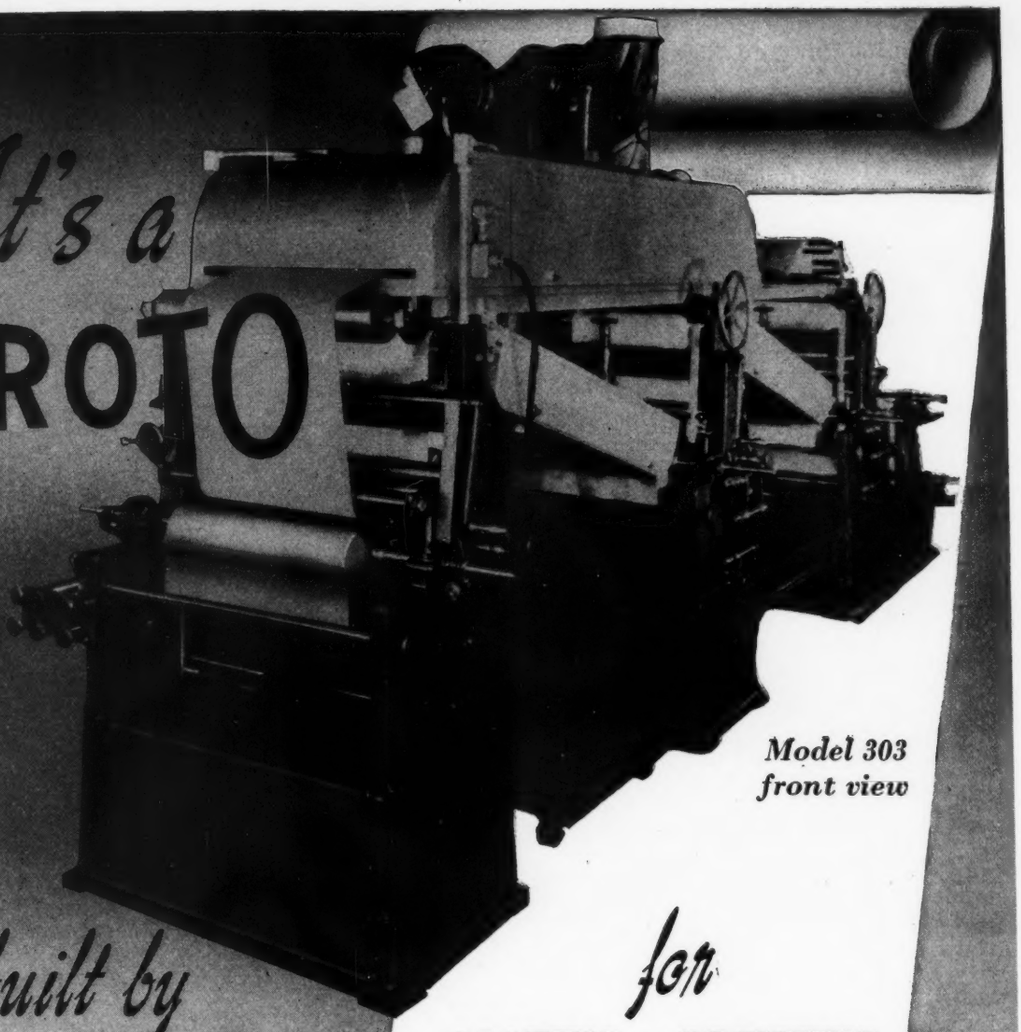
WRITE FOR BOOKLET "FASHIONS IN CARTONS"

ROBERT GAIR COMPANY, INC., NEW YORK • GAIR COMPANY CANADA LIMITED, TORONTO

Folding Cartons • Box Boards • Fibre and Corrugated Shipping Containers

It's a

HYROTO



Model 303
front view

built by

ROTOGRAVURE ENGINEERING CO.

A Subsidiary of
Miller Printing Machinery Co.

•

7614 EMPIRE STATE BLDG.
NEW YORK

for

COATING • PRINTING
and LAMINATING
Paper and
Card Stocks
Foil • Glassine
Plastic Films
and Sheetings
Kraft • Tissues

FAR MORE than the eye can see

WHEN you look at a forest, you may see only a maze of trees, but an expert timber estimator can walk through and report its "stand" with remarkable accuracy.

In packaging, the maze of different varieties in paper is equally bewildering. Only a few kinds are ever mentioned in our advertising, and a "general Riegel catalog" would be impossible.

But Riegel experts know the entire forest of special packaging, converting and industrial papers. Our files contain more than 600 different grades . . . and we have the "know-how" and the manufacturing facilities to produce exactly the right paper for each individual product.

Even now, Riegel customers are being advised of special papers that resulted from our war effort, and that will be available as soon as conditions permit. We would also like to discuss Riegel papers with you.

600 RIEGEL Papers

Riegel packaging papers include glassine, greaseproof, sulphite, wet-strength . . . printed, embossed, resin-impregnated, laminated, oiled, lacquer-coated, waxed, dry-waxed . . . as well as printing papers, converting papers and special industrial papers in endless variety.

RIEGEL PAPER CORPORATION • 342 MADISON AVENUE • NEW YORK 17, NEW YORK

157

Complement to Loveliness

Dainty BEETLE containers add sales appeal and customer satisfaction to "Make-up Pat," Pond's new cake foundation. The cases are molded by Waterbury Companies, Inc.

Pond's picked a BEETLE* plastic package for their new "Make-up Pat." Why? Here was color to carry out design ideas. Smooth, velvety texture to please feminine fancy. Light weight for handling and carrying. Surface that wouldn't mar or scratch. Chemical inertness to protect a delicate cosmetic. All in all, a perfect package—in BEETLE plastic!

If you're looking for just such qualities in a packaging material, consult Cyanamid or your molder on colorful BEETLE. It can be readily adapted to your own product requirements. **Reg. U. S. Pat. Off.*

Cyanamid Plastics

Beetle Melmac · Melurac
Laminac · Urac

AMERICAN CYANAMID COMPANY • *PLASTICS DIVISION* • 30 ROCKEFELLER PLAZA • NEW YORK 20, N. Y.

every second of every day
the products of leading industries
move on

ALVEY Conveyors

ALVEY CONVEYOR MFG. CO. BROADWAY · WYOMING · SEVENTH STS. ST. LOUIS 18, MO.

Ever see 'em coat paper? If you haven't, and have thought it was done with the aid of radar or atomic energy, you're wrong. Coating paper is a science. The oldest and most widely used method today is a round brush like mother had on the old carpet sweeper. This brush spins around in a vat of coating solution and smears color on the paper as the paper rolls along. Other flat brushes scrub the coating into the surface, spreading it out evenly.

For certain kinds of coating another method is "roller coating" One roll picks up the coating, transfers it to another roller, which rolls the coating onto the paper. Most times this coating is smoothed off by a flat blade that rests on the paper, though sometimes the blade is acting on the second roller to smooth the coating out.

Another stunt is to squirt the coating on the paper and then run the paper between rollers which squeeze the excess back to the coating box.

The latest trick, and one of the best for certain coating results, is the air brush coater. By this method, coating is picked up with a roller and splashed onto the paper. An even jet of air coming out of a very thin slit in a blade-like nozzle, under pressure, blows the color backward, evening it out. You can leave a heavy coat or a very thin coat, as you like, depending on the pressure. Since air is free (so far) and nothing touches the paper, this method is a honey. There are some places where air brush coating hasn't produced required results yet, but it looks promising.

Another new stunt is "cast coating"; it coats and finishes in one operation. We will "cover" that next month if enough of you, who read this, write the boss that you want more of this kind of advertising.

You must understand by all this that different papers require different processes. Matthias Paper Corporation claim that if it's results you want, they know when to coat with brushes, rolls, casting, air brush, etc. Their main office is at 165 W. Berks Street, Philadelphia 22, Pa., and they have a branch in the Guilford Bldg., Greensboro, N. C., and a New England office at Box 127, Wellesley 81, Mass.

How to make a free sample cost less!

If you are concerned about the cost of your free samples, you'll be interested in Mistol's experience.

Basically, Mistol's idea was excellent: attach a sample of Mistol drops to every bottle of Nujol. In practice, however, it turned out to be less successful. Because the sample required no less than four individual parts—a glass vial,

cork, wire clip to attach the vial to the Nujol bottle and a separate circular describing the product. Expensive? Yes! Easily breakable, too. And complicated.

Then Mistol discovered Unitainer, Sun Tube's compact, attractive collapsible tube with the airtight break-off pin closure—and reduced those four parts to *two*.

Using Unitainer, a single piece of paper could make up the sample package, *including* a printed sales message.

So much simpler, the sample. So much easier for dealers to handle, for customers to use. And Mistol's purchasing agent *must* have liked it, because cost of the entire sample was greatly reduced.

HERE'S WHERE YOU COME IN

Perhaps you can adapt this tie-in sampling idea to one of your products. But whether you use samples or not, Mistol's experience may help you solve your own packaging problem. Because it is typical of the countless ways in which Sun Tubes may be used. Not necessarily Sun Tube Unitainers—this one-shot tube is only *one* of the types of collapsible tubes our engineers design

to fit your particular product. Tell them your problem and they'll bring the same resourcefulness and ingenuity to bear on your individual requirements that solved Mistol's problem.

Worth remembering, too, is the fact that new developments have made Sun Tubes the more economical, attractive container for a host of products never before considered prospects for a tube. Is *your* product among them?

For information or advice, just phone or write Sun Tube's main office,

181 Long Avenue, Hillside, N. J., or our representative nearest you.

Sun Tube Corporation

HILLSIDE · NEW JERSEY

CHICAGO 1, ILL.
James L. Coffield, Jr.
360 No. Michigan Avenue

ST. LOUIS 1, MO.
M. P. Yates
Arcade Building

ST. PAUL 1, MINN.
Alexander Seymour
615 Pioneer Building

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R. G. F. Byington
1260 North Western Ave.

CINCINNATI 8, OHIO
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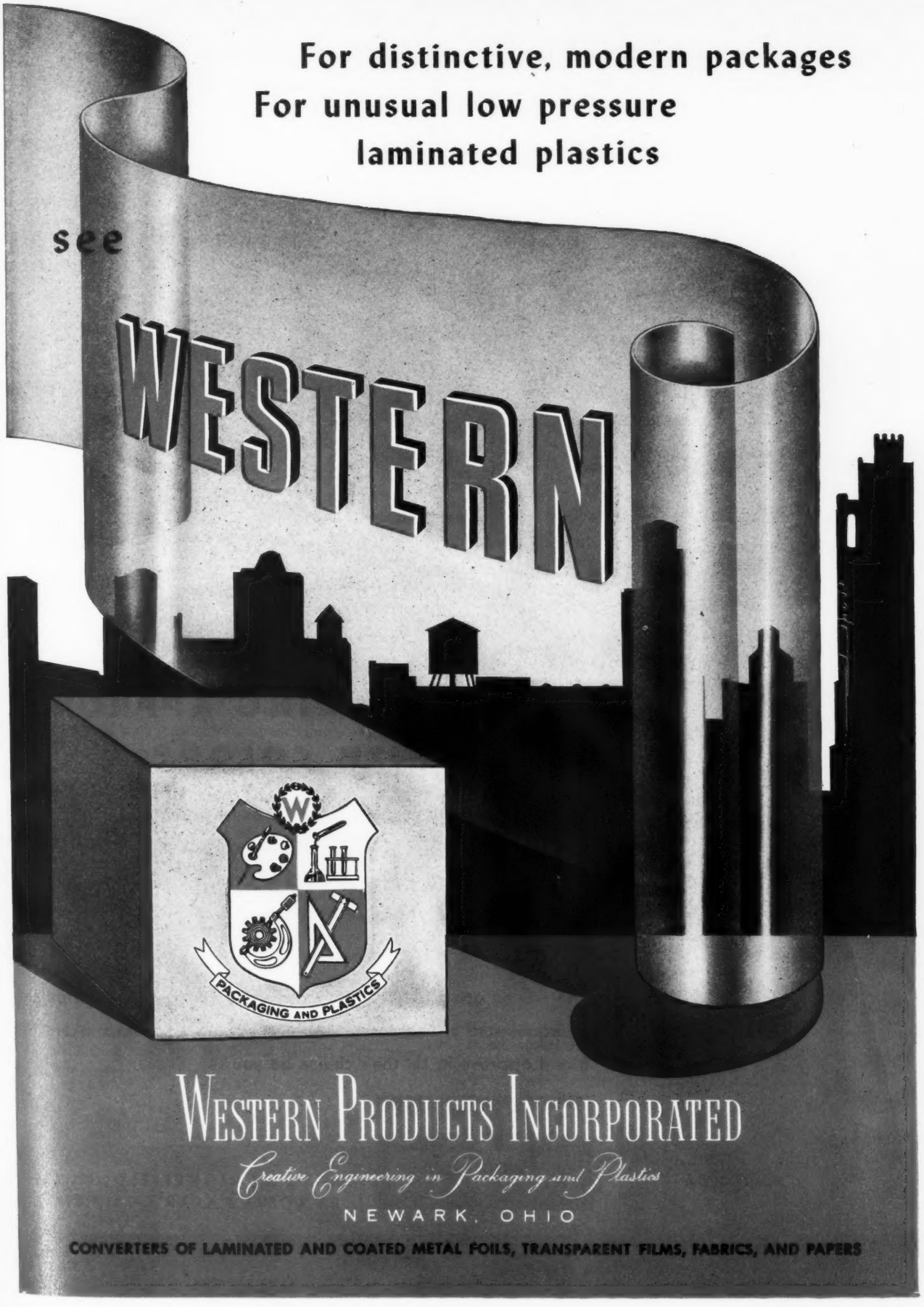
3449 Custer Road


For distinctive, modern packages
For unusual low pressure
laminated plastics
see
WESTERN
PACKAGING AND PLASTICS
WESTERN PRODUCTS INCORPORATED
Creative Engineering in Packaging and Plastics
NEWARK, OHIO
CONVERTERS OF LAMINATED AND COATED METAL FOILS, TRANSPARENT FILMS, FABRICS, AND PAPERS

Your Carton

IS IT CAPTURING APPROVAL WITH COLOR?

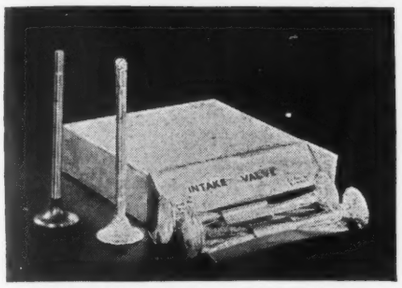
If a carton is easy on the eyes, it gains attention and interest. The invitation becomes a sale. When printed on Ridgelo Clay Coated Boxboard, folding cartons have the peak of brightness, sparkle and color-contrast. They are smooth and clean and high-quality-looking.

There is no good substitute for Ridgelo on the basis of carton appearance and selling-punch. Leading independent boxmakers use it and approve it. Let their choice be yours!

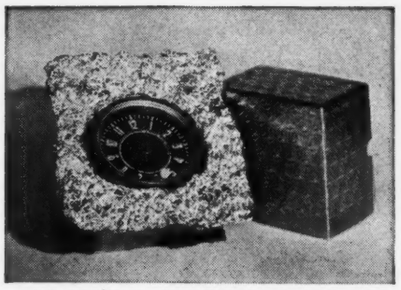
Ridgelo CLAY COATED BOXBOARDS

MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

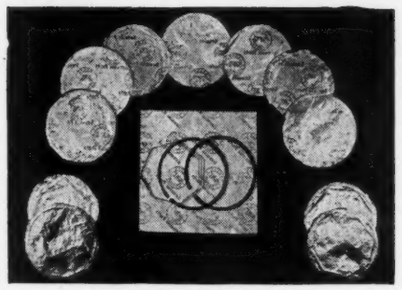
Representatives: Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia



INTAKE VALVES—Individually wrapped in plain aluminum foil to prevent corrosion and placed in foil carton for extra display value.



ELECTRIC AUTOMOBILE CLOCK —Wrapped in corrosion-proof aluminum foil and displayed in attractive embossed foil box.



PISTON RINGS—Conforming wrap with name-embossed aluminum foil insuring trade mark protection; or can be printed on the outside with descriptive matter.

A brighter life for metal parts

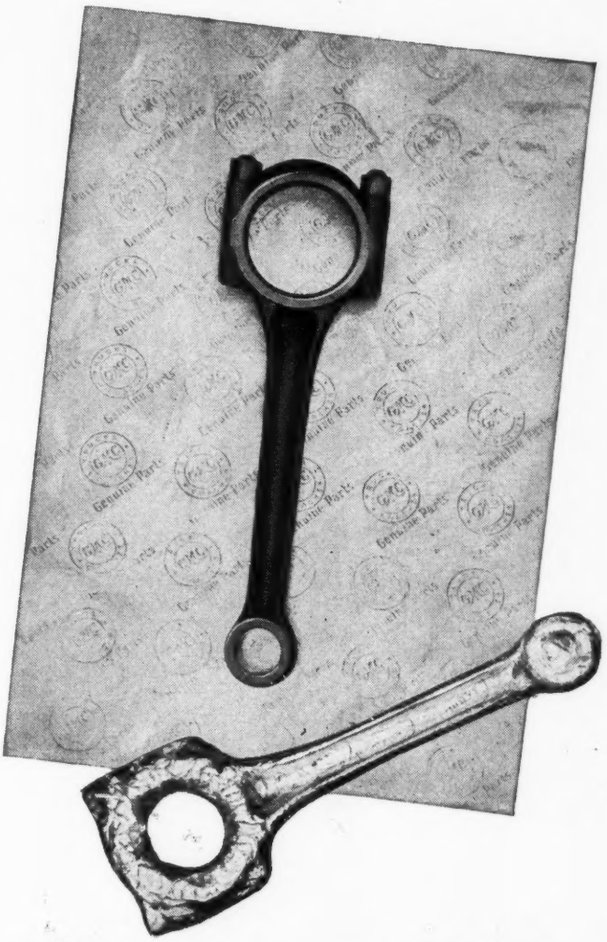
Corrosion threat banished . . . Sales allure added . . . With Aluminum Foil

A VERY SIMPLE, yet revolutionary method of packaging was developed by Reynolds to safeguard metal parts under severe wartime conditions. It is based on the principle of "cathodic protection" first developed in co-operation with the Army Medical Corps. Now the same method of packaging brings to peacetime metal products a new type of corrosion-proof protection . . . plus sparkling sales appeal of foil.

Shown on this page are typical examples. Manufacturers will find in this new use of Aluminum Foil a powerful medium for development of sales in keeping with the modern trend of brand promotion and better protection for metal parts.

* * *

If you would like complete data on the new uses of Aluminum Foil, write Reynolds Metals Company, Richmond 19, Virginia.

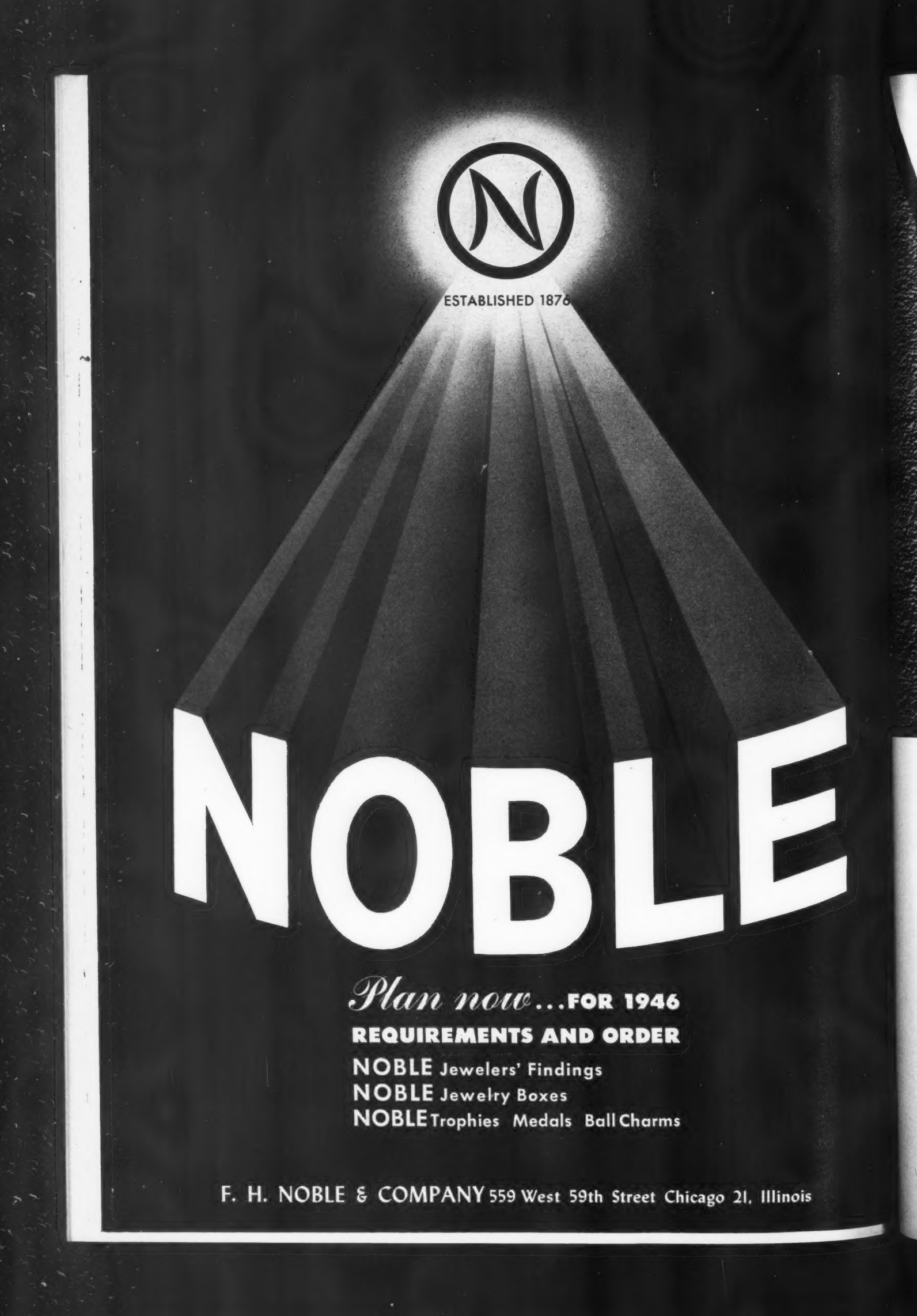


CONNECTING ROD is placed on a sheet of embossed Reynolds Foil. Then the foil is pressed smoothly against the surface in a doughnut type of intimate wrap. The foil wrap not only adds "buy-appeal" to the article, but acts as a safeguard against contact corrosion.

REYNOLDS ALUMINUM

REYNOLDS METALS COMPANY

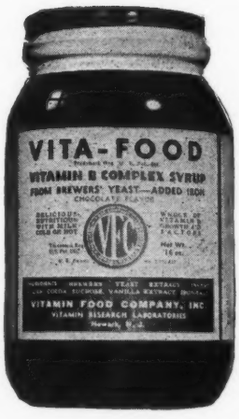
Leads the way in Foil Packaging


ESTABLISHED 1876
NOBLE
Plan now...FOR 1946
REQUIREMENTS AND ORDER
NOBLE Jewelers' Findings
NOBLE Jewelry Boxes
NOBLE Trophies Medals Ball Charms
F. H. NOBLE & COMPANY 559 West 59th Street Chicago 21, Illinois

Vitamin Product?

...Another Reason for CEL-O-SEAL

REG. U. S. PAT. OFF.



DU PONT

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

People are extra particular about purity when they buy products that promote good health. It's only natural that they want to be absolutely sure of getting the full strength, quality and effectiveness.

Purchasers can see by the unbroken "Cel-O-Seal" band that the purity of Vita-Food Vitamin B Complex Syrup has been protected. They know the product is as pure as the day it left the manufacturer, because the primary closure has been *sealed* against contamination and substitution.

Easily applied, Du Pont "Cel-O-Seal" cellulose bands will mark your product "purity protected." They do an all-round job . . . add eye-catching color . . . can be *indelibly* printed. Write today for full information.

"Cel-O-Seal" cellulose bands are manufactured by E. I. du Pont de Nemours & Co. (Inc.), Wilmington, Del. They are also sold by Armstrong Cork Co., Lancaster, Pa., and I. F. Schnier Co., San Francisco, Cal.

DU PONT "CEL-O-SEAL" BANDS

SAFE, GUARANTEED PROTECTION FROM DUST, MOISTURE, ABRASION AND SCRATCHING FOR EVERY COMMODITY DURING SHIPPING AND STORAGE

BELLOWS DUST BAGS

THERE are very few manufacturers who can't use these ... to great advantage, too! In the broad interpretation ... they're not really "bags" but are actually covers . . . closed at one end . . . open on the other. Exceptionally easy to handle. Ideal for use wherever protection is required from dirt, dust, moisture, abrasion and scratching. Designed to fill your particular requirement . . . available in dozens of sizes . . . in all materials . . . from kraft to glassine! Delivery? . . . practically at once! Phone, write or wire our New York office for full data.

W. Ralston & Co., Inc.

Niagara Falls, N. Y.

Founded 1890—Incorporated 1918

Saturated Papers — Building Papers — Reinforced Papers — Duplex Papers — Case, Barrel and Bag Liners — Creped Papers — Laminated Specialties

Sales Office—220 E. 42ND STREET, NEW YORK, N. Y.

Have You a Coating Problem?

The problem of formulating specific coatings for general use has already been solved, to a great degree, by SYNTRON coatings. These are ready for you . . . available for immediate use.*

But today, there are many coating problems that are so complex, so unusual, that ready-made coatings cannot produce the desired perfection. These problems can be solved only with *custom-made coatings.*

The Gordon-Lacey research laboratories, which created so many of the standard coatings now being used by the nations' largest industries, are engaged exclusively in developing new SYNTRON Coatings . . . "CUSTOM-MADE COATINGS to MEET YOUR INDIVIDUAL NEEDS."

These new SYNTRON Coatings can be formulated for application to both porous and non-porous surfaces such as: fabric, paper, wood, plastic, nylon, metal, etc., to impart such important qualities as moisture vapor proof protection; resistance to grease and oil; to acids, alkalis and chemicals; heat sealing, toughness, durability and flexibility; abrasion resistance, etc.

WRITE for full information concerning your coating problem to Dept. MPF.

*ALUMINUM HEAT-SEAL COATINGS

Specially developed to give maximum sealing strength for all types of aluminum foil bags and packages. Actually sets up a solid barrier between the contents and attacking atmosphere. Waterproof, non-toxic, colorless, odorless, oil, acid, alkali and alcohol resistant. Block — above 135° fahrenheit under 1 lb. pressure per square inch.

*HIGH GLOSS COATINGS

Protective coatings that give a very high gloss to all kinds of papers, eliminating need for laminated cellophane or for wrapping packages in cellophane to give them protection and sparkling attractiveness. Alcohol proof; grease, oil, acid and alkali resistant; and heat-sealable.

*MOISTURE VAPOR PROOF HEAT-SEAL COATINGS

Ideal for all types of paper bags and packages, especially glassine. Non-toxic, odorless, oil and grease resistant. 1 to 5 grams moisture vapor per 24 hours per square meter. Block —above 135° fahrenheit under 1 lb. pressure per square inch.

SYNTRON* Coatings for PAPER CLOTH METAL

*TRADE MARK

GORDON-LACEY CHEMICAL PRODUCTS CO.

57-02 48th STREET • MASPETH, NEW YORK

MR. CONVERTER,

How's your m·v·t· today?

Not so good? Glad to hear it! Moisture-vapor transmission is the one thing that paper wraps must avoid if they are to be at all effective. But if you have to admit that your MVT is not under control, you should investigate Darex Thermoplastic Coatings, designed to put this worry out of your mind forever.

This is what you get in Darex Thermoplastic Coatings:

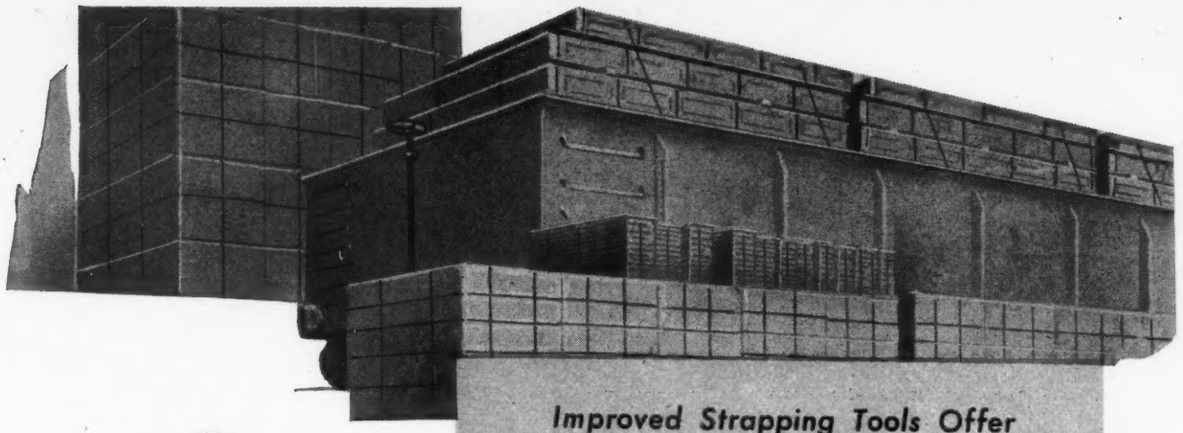
1. A true moisture-vapor barrier.
2. Excellent heat-sealing qualities.
3. Clean creasing, plus resistance to cracking.
4. Freedom from taste and odor.
5. Controllable film weights for tailor-made applications.
6. Economical large-scale application.
7. A texture free from waxiness or greasiness.
8. Low-temperature adaptability, without flaking or chipping.

Think of these advantages in terms of cheese wrappers — cereal wrappers — packaging for frozen foods. Darex Thermoplastic Coatings are made for packaging control — to take MVT off your mind and to make your paper wraps truly effective.

Dewey and Almy Chemical Company, Packaging Division
Cambridge 40, Massachusetts

DAREX THERMOPLASTIC COATINGS

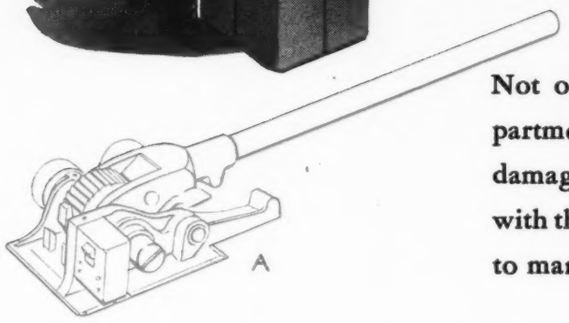
★



Improved Strapping Tools Offer

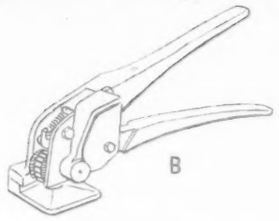
NEW EFFICIENCY—
NEW SHIPPING SATISFACTION
to Regular Users of

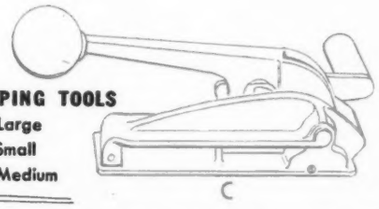
STEEL STRAPPING



Not only speed and economy in the shipping department but savings in transportation cost and in damage claims result from use of the right strapping with the best tools. These advantages will be afforded to many manufacturers by

Steelband Shipping Service





STRAPPING TOOLS
A—Large
B—Small
C—Medium

Production has been mainly taken up with Government demands but that condition is now changing and the shipping requirements of any user will receive every attention that it is possible to give them. The needs of each user will be separately and specifically considered. Consultation is invited and will incur no obligation.

AMERICAN STEEL BAND COMPANY

PITTSBURGH, PA. ESTABLISHED 1891 PLANT, CARNEGIE, PA.

ROOFING • SIDING • VENTILATORS • DUCTS • STEEL STRAPPING • SPECIALTIES

"I've got a SWELL boss!"

Miss Jones: "I *mean* it, Gloria! He's swell!"

Gloria: "Say, hold on there—what did he do?"

Miss Jones: "Well, I saw one of those popular Glass Container ads — you know, Mr. Slowey's ads — and read it to B. J. It said: *Cash in on your accumulations of containers and caps. All shapes, all sizes.* B. J. called Mr. Slowey right away."

Gloria: "So what happened?"

Miss Jones: "Mr. Slowey bought up our stockroom pile of bottles and caps just like that! Now we have lots of free space, a nice check, and *I* have a new fur coat that's a *honey*. That's B. J.'s bonus to me! Gee, I've got a swell boss!"

THAT'S it, friends! Call us this minute— We BUY (and SELL!) containers and caps in All sizes, all quantities.

phone. ALgonquin 4-6066

glass container & cap outlet co.

876 Broadway
New York 3, N. Y.

Lederle

A RESPECTED TRADE NAME IS A VALUABLE ASSET

The name LEDERLE is a symbol that for decades has been associated with dependable pharmaceuticals and extensive research in medical science. That name is being kept active in the minds of the public on many pleasing and highly ethical lithographed displays supplied to druggists by Lederle Laboratories, Inc., to help keep store windows and counters interesting and attractive. YOUR trade name or trade-mark is one of your most valuable assets—keep it prominent at points of purchase and points of use. We can help you maintain recognition of your trade name.

FORBES LITHOGRAPH CO.

NEW YORK CLEVELAND CHICAGO ROCHESTER

P. O. Box 513 Boston 2

How Patapar helps protect foods

Into American homes every day foods are arriving fresh and appetizing—thanks to the protecting folds of Patapar* Vegetable Parchment. How about your product? If you are not already using Patapar for protection, now is a good time to get to know this unique packaging material.

Boil it in water...

One of the secrets of Patapar is its great wet-strength. Patapar can be drenched in water—even boiled—and remain strong. When moist foods are wrapped in it, Patapar stays intact—*protects.*

Wrap grease in it

When Patapar comes in contact with fats, grease or oils, it resist penetration. Products with high grease content are wrapped in it and kept fresh. Patapar's outer surface remains clean—inviting.

Beautiful texture

Patapar's texture is rich—distinctive. It tells of quality. And when it is printed the effect is vivid and colorful. We can do the printing in our own plants where there is complete modern equipment for printing Patapar by letterpress or offset lithography.

Patapar keymark

This little keymark is the nationally advertised symbol of wrapper protection. Included on your printed Patapar wrappers it tells customers your product is well protected.

*Reg. U. S. Pat. Off.

Some of the ways to use Patapar

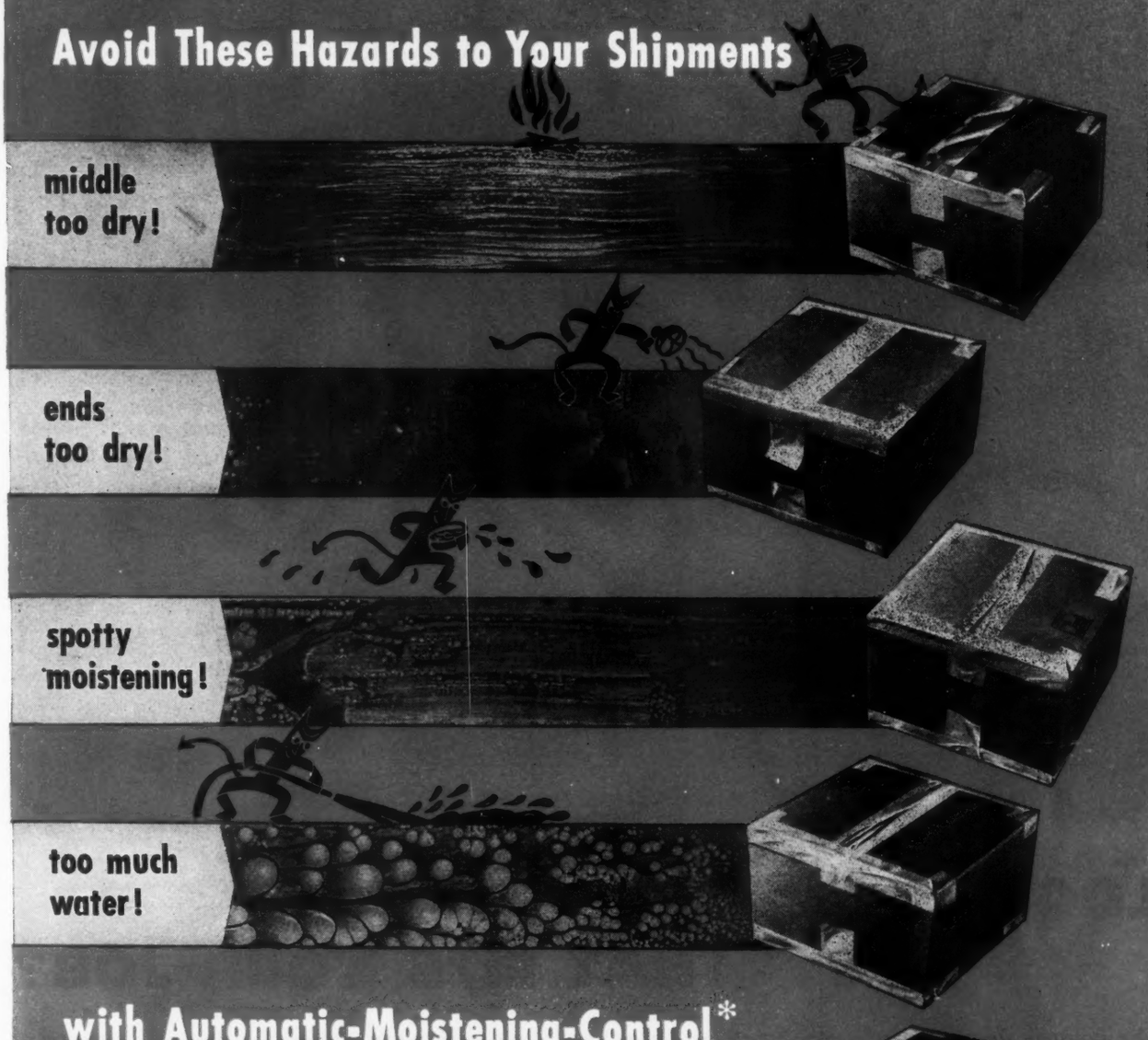
Wrappers for butter, meats, fish, cheese, poultry, shortening, ice cream, vegetables. Carton and box liners. Bulk packaging units. Milk can gaskets. Milk bottle hoods. Can liners. Vitamin capsule trays.

Paterson Parchment Paper Company • Bristol, Pennsylvania

Headquarters for Vegetable Parchment Since 1885

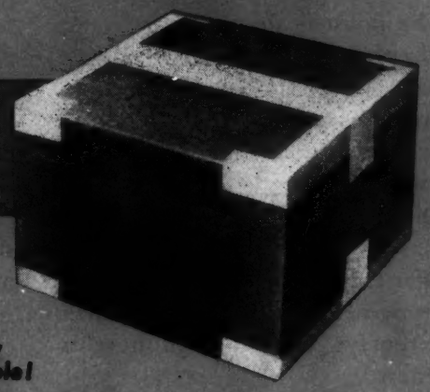
WEST COAST PLANT: 340 BRYANT STREET, SAN FRANCISCO 7, CALIFORNIA
BRANCH OFFICES: 120 BROADWAY, NEW YORK 5, N. Y. • 111 WEST WASHINGTON ST., CHICAGO 2, ILL.

Avoid These Hazards to Your Shipments



with Automatic-Moistening-Control*

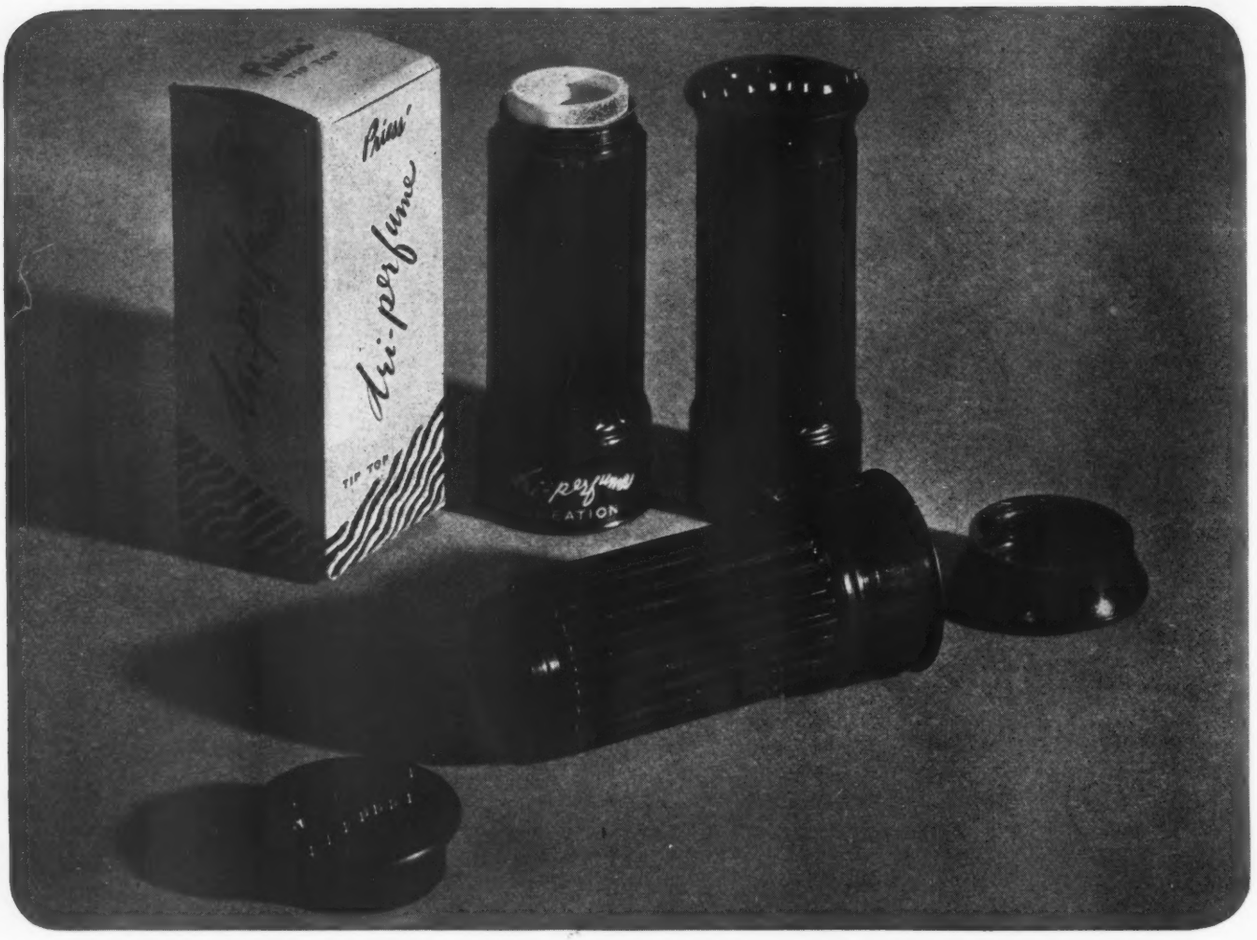
correct moistening!



*Automatic-Moistening-Control, patented feature of Counterboy tape machines, assures correct moistening—safe, fast sealing with a minimum of trouble!

Better Packages, INC.
SHELTON, CONN.

TAPE-SHOOTER #120
ONE OF 52 MODELS— Counterboy TAPE MACHINES FOR EVERY SEALING PURPOSE



LOOKING FOR THE PLASTIC THAT FITS YOUR JOB?

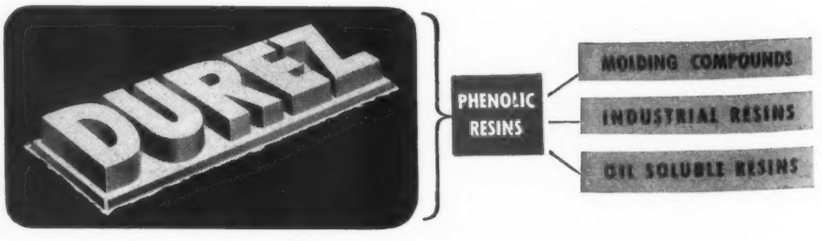
The unusual merchandising value of a plastic container has long since been proved. For this reason, probably no field has made more profitable use of plastics than packaging.

Of the many different types of plastic materials, the phenolics offer the widest range of inherent properties—accounting for their extensive use throughout this industry.

For example, Durez phenolic molding compounds are now being successfully utilized in numerous items ranging from the attractive "Dri-Perfume" container illustrated to bottle closures. In fact, more closures have been made from Durez than from any other plastic material.

A few important characteristics of Durez phenolic compounds are eye-appealing, non-bleeding finish, excellent moldability, impact strength, and resistance to heat, moisture, mild acids and alkalies.

As specialists in the production of phenolic plastics for the past quarter century, Durez laboratory technicians are extremely well equipped to help you find the plastic that fits your job. Durez Plastics & Chemicals, Inc., 252 Walck Road, North Tonawanda, New York.



PLASTICS THAT FIT THE JOB

Artist: Rea Massie, native of Chile

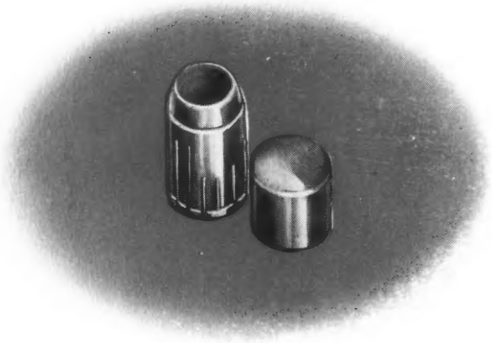
CHILE

Southernmost of United Nations—exchanges products in native packages for imports in modern containers. Our special staff of designers and engineers is prepared to develop exactly the right package for your product.

CONTAINER CORPORATION OF AMERICA

CHICAGO, ILLINOIS, AND 23 OTHER CITIES

SAVE WASTE PAPER



BIG MAKERS OF SMALL PLASTICS

For many years we have specialized in making plastic closures.

Now the automatic machines that mold these closures make millions and millions of small plastic items to fill a vast variety of needs.

Our extensive research, our past war assignments, our long manufacturing experiences—mean that these thermo-setting plastic units are turned out with the utmost efficiency, speed and economy!

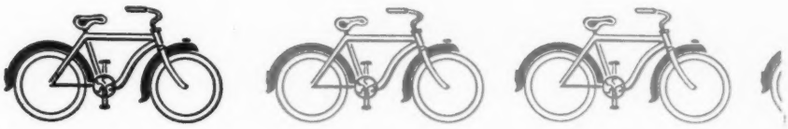
If you need any type of small plastic unit, we suggest you consult our expert designers.

CLOSURE AND PLASTICS DIVISION

OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO BRANCHES IN ALL PRINCIPAL CITIES

Beets, Bicycles, or Candy Bars



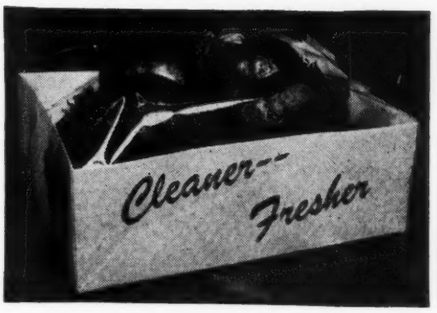
PACKAGING fresh vegetables speeds store service, reduces spoilage, attracts customers. The package requires visibility, fine appearance, and resistance to moisture.

Packaging of bicycles simplifies warehousing and delivery, protects the product until it reaches the ultimate buyer.

Packaging of candy bars in lots of six or eight increases the unit of sale and adds convenience for buyers.

Widely varied products with widely varied requirements, sales problems, delivery problems find their answer in the complete facilities embraced by PLANNED PACKAGING.

From the manufacture of board all the way through research, development, testing, and converting every step in your packaging is coordinated. Saves time. Saves money.



Packaging like this strikes a new note in the merchandising of fresh vegetables. It has been our privilege to work with food merchandisers in developing details of these visible-type cartons. Early records show definite improvement in sales, handling cost, and reduction of spoilage.

THE OHIO BOXBOARD CO.

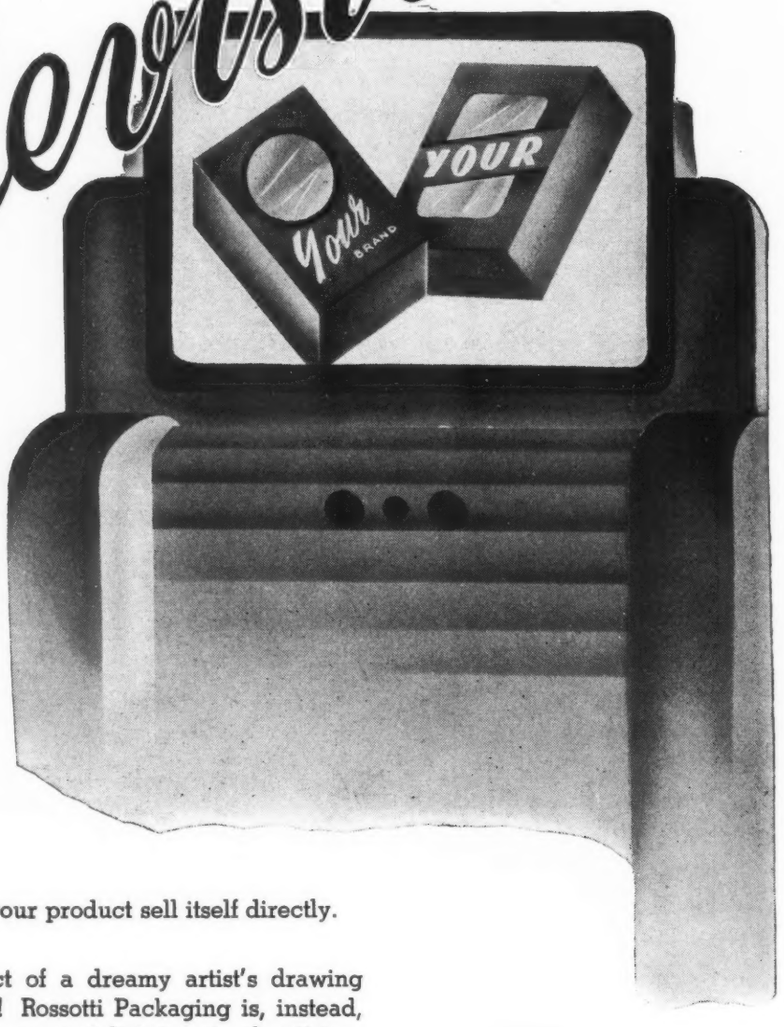
RITTMAN, OHIO

Manufacturers of paper board, folding boxes, corrugated and fiber shipping containers, and converted specialties

SALES OFFICES: RITTMAN • AKRON • CLEVELAND • CINCINNATI • PITTSBURGH • NEW YORK • CHICAGO

Capacity 500 tons daily

INTRODUCING: Sellervision!



Does it SELL—*your* product?

That's the one and only question about labeling or packaging.

Yet a thousand and one little questions enter into the correct answer.

ROSSOTTI'S SINGL-VU and DUBL-VU CARTONS are new and already proved highly effective salesmen in their own right. They are designed to reveal your actual product through single or double windows. They present dramatically your outstanding selling points. They make your product sell itself directly.

Rossotti Packaging is *not* a product of a dreamy artist's drawing board—though there *are* dreams in it! Rossotti Packaging is, instead, the creation of this Rossotti Organization—specialists in art, advertising, market research and analysis, and a lot of other fundamental merchandising principles.

There's a ROSSOTTI CONSULTANT on packaging and labeling now ready to go into a huddle with you on your problems—without obligation. Call or write us . . . and discover how well worth while that is!

Rossotti
SINCE 1898

ROSSOTTI LITHOGRAPHING CO., INC. • NORTH BERGEN, N. J.

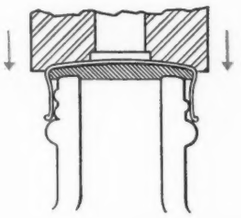
BOSTON 9, Mass.: 200 Milk Street • ROCHESTER 4, N. Y.: 183 Main Street, East
JACKSONVILLE 2, Fla.: 1106 Barnett National Bank Building • CHICAGO 11, Ill.: 520 North Michigan Avenue
ROSSOTTI WEST COAST LITHOGRAPHING CORP., 255 California St., San Francisco 11, Cal.

once again family protection with Aluminum Seals

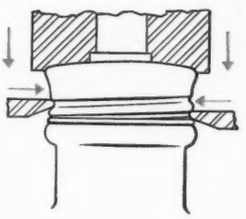
As soon as the freeze went off aluminum for civilian use, Euclid Foods, Inc., went right back to Alseco *Rolled-On* Seals for their family of "Coronet" condiments. They knew that strong aluminum R-O's licked the problems of staleness, caking and evaporation by giving them a snug-fitting, tailor-made seal. Combined with the shaker-top feature, the Alseco R-O gave them a popular and useful package that users like. We'll be glad to demonstrate on your product the advantages which prompted their move.

This works best with Aluminum

1. Plain-skirted Alseco Seal is seated squarely on container. Under stationary top pressure, container lip is embedded in cap liner evenly all around, effecting the seal.



2. While the seal is thus held under pressure, threads are Rolled-On to conform exactly with threads on container. Each seal is tailormade, fits perfectly, seals tighter.



ALSECO

TAILOR-MADE OF ALCOA ALUMINUM

SEALS AND SEALING MACHINES

ALUMINUM SEAL COMPANY · 1345 THIRD AVENUE · NEW KENSINGTON, PENNSYLVANIA

SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

The Cornerstone of Character in Packaging Papers . . .

Throughout the war years, Marvellum assured its customers that come the tranquil days of peace, this company would unveil to them *new* ideas, *new* designs and *new* sales-stimuli.

Now this Marvellum promise is about to be translated into performance. *Every day* brings us closer to the moment when Papers Distinctive will be spotlighting merchandise on dealers' counters and shelves.

This postwar line of Papers Distinctive will fulfill in every way the merits Marvellum buyers have a right to expect.

Until general distribution of the new line can be effected, we are maintaining regular deliveries on Marvellum standard items. Specify your requirements.

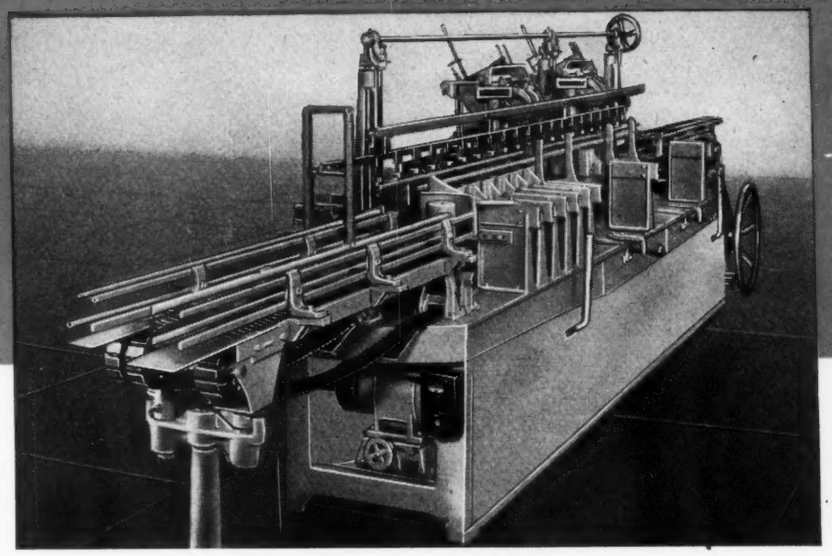
THE MARVELLUM COMPANY

• Papers Distinctive •

HOLYOKE
MASSACHUSETTS

BEE-LINE

Your Labeling Operation



Labeling is last but by no means least on the production line. When your product arrives at that point you can't afford to risk traffic jams, collisions or detours. Put it on the BEE-LINE and be sure it gets through smoothly, swiftly, safely—all dressed up and ready to sell.

The WORLD BEE-LINE Labeler applies front labels, front and back labels, and neck labels if desired, to round, square, flat, oval or panel containers. Its gentle, bee-line action is ideal for the modern light weight glass.

Line up your labeled line for a ride on the BEE-LINE. It gets you there in first-class shape with no pummeling or pushing around.

Send us samples of your labeled containers and let us make accurate production and cost estimates for you.

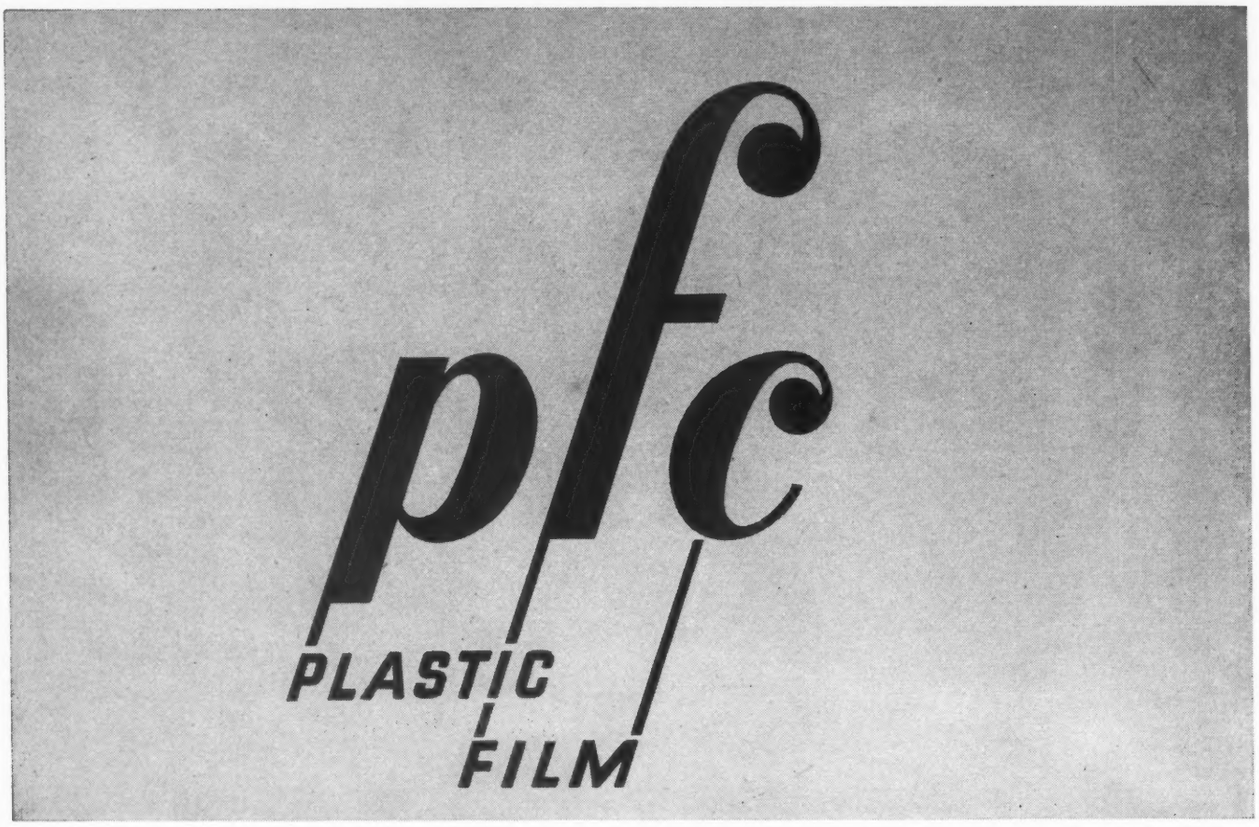
"YOU GET THE BEST LABELERS IN THE WORLD"

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

WORCESTER, MASSACHUSETTS

New York Philadelphia Pittsburgh Chicago San Francisco Denver
Louisville Salt Lake City El Paso Seattle Portland Phoenix London
Montreal Toronto Winnipeg Spokane Vancouver Mexico City
Sydney, Australia Wellington, N. Z. San Juan, P. R. Ciudad, Trujillo, D. R.



for Scores of Vital Jobs

PLASTIC FILM CORPORATION

NEW YORK OFFICE: 475 FIFTH AVE., NEW YORK 17, N. Y.

PLANT AT: PLAINFIELD, CONNECTICUT

THE ROSS WAY IS THE NEW WAY

EASE IN ADJUSTING . . .

ROSS machines are quickly adjusted by threaded compounds, and when set, are locked with knurled threaded locknuts. The above photograph illustrates the ease and simplicity of adjusting. This ROSS machine is fully automatic for setting up and tucking one end of folding cartons.

The same features are available on the ROSS fully automatic machine *(loading and closing both ends of either tuck or sealed carton).*

PAT. APPLIED FOR

PRECISION PARTS • SELF OILING • DIAL CONTROL
VERSATILE ADJUSTABILITY • MASTER SPEEDRANGER

A. H. ROSS and Co.

PACKAGING MACHINERY

LUDLOW • KENTUCKY

Steel...

Steel slabs rolling off the roughing stand in the hot strip mill

• Through a series of roughing and finishing stands and on to the temper pass goes the steel that puts maximum durability in sturdy *cans.*

Yes, it's a rough process, but steel is its own protection against rough handling. You profit by that same protection when you pack your products in steel containers, which cut down breakage loss at every danger point. In volume packing operations, it's the heat-tempered steel that guarantees rapid, safe filling without danger of breakage or jamming on the line. And your products in shatterproof steel containers can take all the knocking around they get on trucks and trains and in busy warehouses.

Dealers, too, appreciate the protective qualities of steel cans. They know that products packed in crush-resistant steel containers can be safely stocked for future use . . . displayed effectively without danger of breakage.

So, pack your products in trouble-free cans — the *steel* package that pleases as it protects.

Added Advantages of Steel Cans for Your Products

1. Air-, light- and moisture-proof . . . preserve quality.
2. Light, compact . . . save shelf and storage space.
3. Tamperproof . . . eliminate danger of substitution.
4. Display effectively . . . ideal for colorful, lithographed labeling.
5. ***Nationally advertised*** . . . more than 28,000,000 full-page, full-color ads this month are promoting products packed in cans.

CAN MANUFACTURERS INSTITUTE, INC., NEW YORK

NO OTHER CONTAINER PROTECTS LIKE THE CAN

Beauty
SELLS MORE GOODS

Beauty has proved sales power: it actually sells goods.

Beauty of product is not enough—and as competition comes more and more strongly into play, the added beauty of packaging becomes a necessity.

There is no more beautiful packaging aid than an embossed, color-printed label, seal, tag or wrap.

And there is no more beautiful label, seal, tag or wrap than one made by Cameo.

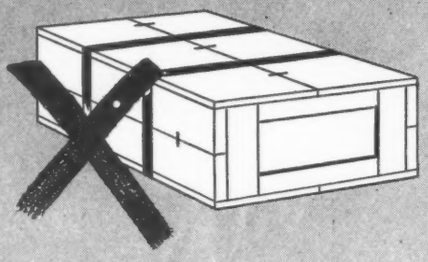
Cameo craftsmanship has long been a by-word in the packaging field. Put this proved sales force to work for your products.

IN CANADA: CAMEO CRAFTS INC.
157 ST. PAUL ST. WEST MONTREAL

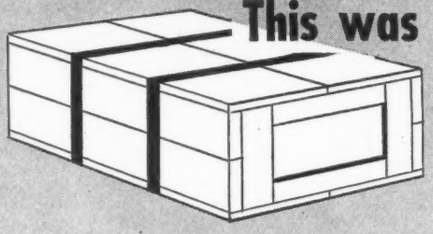
CAMEO
DIE AND LABEL COMPANY
DESIGNERS and CRAFTSMEN
154 WEST 14th STREET
NEW YORK 11, N. Y.
WATKINS 9-8484

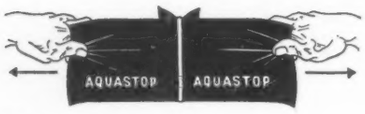
Both are Waterproofed Packages BUT—

This one failed! This package couldn't *breathe!*



This one was satisfactory! This was a "*Breathing* package!"





No cracking

No tackiness

No flow

No loss of flexibility

Retains waterproofness

"Breathes" a minimum of 5 grams per 100 sq. in. per 24 hours

Withstands minimum hydrostatic pressure of 40 lbs. per sq. in.

Positive fool proof seal

Look us up at
BOOTH 33
Packaging Exposition
ATLANTIC CITY
April 2 to 5, 1946

Both of these cases were given the same attention in packing the article to be shipped. Both were packed with a waterproof case liner. But the package on the left failed—the goods it contained were ruined with corrosion from condensation due to temperature changes.

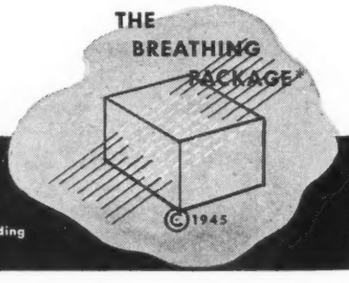
The material shipped in package on the right arrived at its destination in satisfactory condition. This package was lined with AQUASTOP, a new synthetic, impregnated, coated and chemically-treated strong, tough, flexible and resilient waterproof liner fabric.

The difference between the two packages lies in the fact that with AQUASTOP, the whole package could "breathe" moisture-vapor. No humid or damp conditions could get sealed in, with no way for the moisture to get out. With AQUASTOP, any moisture inside the package can *breathe*, or pass thru to the outside, at once removing the costly dangers of ruin from condensation.

A new technical case liner development, AQUASTOP adequately meets every specification, from exposure to severe temperature changes, to withstanding packing stresses and strains. Available panels or pre-fabricated bags to meet your size requirements, AQUASTOP is the modern packing case liner. AQUASTOP CEMENT gives it a "chemical weld" at all seams, strong as the material itself, or the material can be commercially heat sealed.

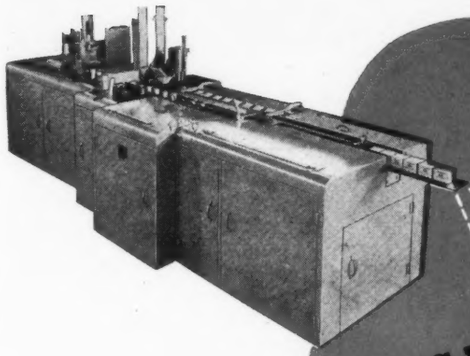
Investigate this new modern case lining. Write for new illustrated AQUASTOP brochure showing how AQUASTOP can be applied to your peacetime shipping problems.

PROTECTIVE COATINGS CORPORATION
681 Main Street Belleville 9, N. J.



AQUASTOP

*Pat. Pending



THIS JONES CARTONER DOES THESE SIX JOBS FOR NOXZEMA

What are YOUR requirements in a cartoning machine?

Recently installed by the Bunting Chemical Co., makers of Noxzema, this Jones Constant Motion Cartoner automatically performs six operations at a speed of 120 or more packages per minute.

Receives Noxzema jars from labelling machine on plate chain conveyor . . . gradually transfers jars to bucket conveyor with star wheel . . . feeds and folds advertising leaflet . . . opens carton, stencils control number on flap . . . gradually inserts jar and leaflet . . . closes and tucks flaps.

And this machine, operating on two sizes of Noxzema jars, can be converted from one size to another in less than 30 minutes. All changes are positive . . . no guessing at adjustments.

Your package may require even more operations -- perhaps fewer. But whatever your cartoning needs may be, let us talk them over with you. Let us show you how a Jones Constant Motion Cartoner will carton your product faster, more efficiently and with more profit for you.

A sample of your product sent with your inquiry will facilitate our giving you complete information.

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Full Opening String Type for Tamperproof Factory Sealing Plus Easy Opening and Reclosure
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With the development of amazing war-time formulas, insecticides have become products of major importance! Sefton, alert to their sales possibilities, has created a variety of types of containers to suit every insecticide need! There are convenient shaker-top cans, versatile string-opening cans, "pour" types and many others. All types are available in a wide range of sizes. Find out today the Sefton can that will do the most for your insecticide!
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. . . as in Betner Service

Yes, sir, it's a *complete* packaging service that Betner gives—from idea to finished bag.

And available to you, all or part.

Is it frozen foods you're interested in? Or containers for retail or institutional use? Leading firms have found their answer in Betner Bags.

For frozen foods, coffee, cereals, flour mixes, powdered and dehydrated foods, etc., nothing has come along more satisfactory to progressive processors than Betner Bags. They want quick fill-and-seal, top moisture-vapor protection, a minimum of packaging equipment. They demand insurance against leakage, seepage, loss of flavor. They get 'em all with Betner Thermoseal and Lamofilm Bags.

A complete bag service is on call here. Idea men, art staff, printing presses, bag-making machinery at your command—or any part thereof. Write us about your problem, present or postwar.

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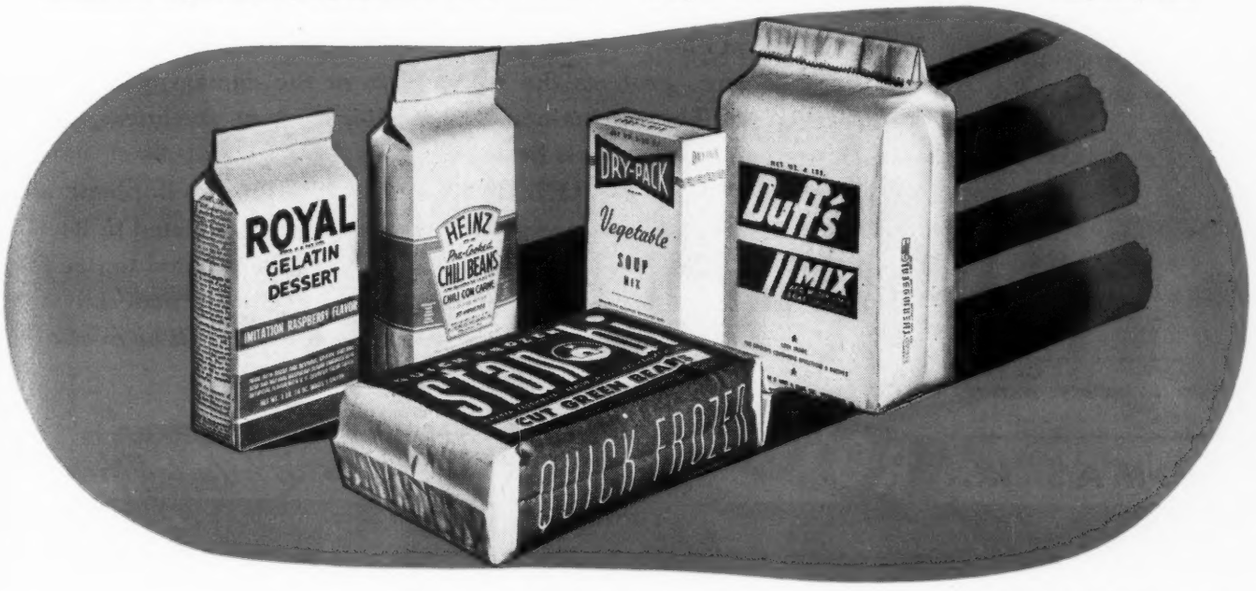

OFF TO A GOOD START...

Every Royal Flav-O-Tainer package has a perfect right to be pleased with itself—not only because of its appearance, which invariably stands out from the crowd—*but also because it gets the product off to a good start.*

You see, a Royal Flav-O-Tainer package being a patented duplex bag, heat sealed on all seams, protects the contents from the damaging effects of air, moisture, etc. Thus it maintains that all-important *freshness*, keeps aroma IN the package where it belongs.

We are making FLAV-O-TAINERS lined with Pliofilm, Cellophane and Dioflex *now* (Dioflex is moisture-proof coated glassine laminated to itself).

Other Royalflex films such as Selloflex (Cellophane laminated to itself or to other material) Lumiflex (aluminum foil laminated to other material), and Plioflex (Pliofilm laminated to itself or to other material) *will be available soon.*

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Packages Protected by S/V Products 2300 Series Stay Flexible at Low Temperatures

Here's the answer to safe, economical frozen food packaging—S/V Products 2300 Series blended with paraffin waxes for coating paper, paperboard and glassine.

Now available in volume to meet your needs, these famous microcrystalline waxes are specifically designed to remain flexible at low temperatures with no flaking or chipping off. Hence, in frozen food packaging, they maintain tough, durable films to keep moisture *in*, and food *fresh*.

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FROZEN FOODS
S/V Microcrystalline Waxes

Impart flexible moistureproof coatings.

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DEHYDRATED FOODS
S/V Microcrystalline Waxes

When used as coatings, keep contents dry.

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CONTAINER LININGS
S/V Microcrystalline Waxes

Protect interiors of barrels, drums, tank cars.

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Give flexible inert linings.

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Special Waxes

Produce tough, tenacious seals on paper.

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S/V Waxes, Petrolatums

Waterproof and seal dynamite sticks.

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Add strength to waxes used for containers.

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Keep metals from rusting in storage.

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CREATORS • CHEMISTS • CRAFTSMEN
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THERE ARE *two* SIDES TO EVERY PRODUCT!

There are two sides to every product — the inside and the outside. Your customers see the *outside first!* Which product they buy, depends upon what they see. . . . *You* make the inside. *Our* business is making the outside — the material in which your product is wrapped or packaged. We have the experience, the facilities and the resources to make the outside of your product so attractive that people will pick it out, pick it up and *pay* for it!

YOUR PACKAGE IS PART OF YOUR PRODUCT

NASHUA GUMMED AND COATED PAPER COMPANY • NASHUA, NEW HAMPSHIRE

MODERN PACKAGING
VOLUME 19 FEBRUARY 1946 NUMBER 6

The laundry . . . ready for better packaging

Keen minds behind the $600,000,000 laundry industry recognize the business-building job that proper packaging can do for them. But has packaging done a good job of selling itself in this field? A survey reveals that while most laundries use various forms of packaging, few regard it as a means of merchandising. The majority fail even to print their names on boxes, boards or bands—and ignore completely these ready-made vehicles for a sales message.

Does the laundry industry realize the value of packaging to itself and to its consumer customers? Do package makers realize the extent and value of this potential market for packaging materials?

Light is shed on both of these questions by a recent study conducted jointly by MODERN PACKAGING and the American Institute of Laundering.

The project was really conceived some 18 months ago, when the American Institute of Laundering propounded the question "Has any research been conducted on the subject of improved laundry packaging?" They indicated that previous contacts with manufacturers of paperboard and transparent film disclosed comparatively little information or even interest. To them, this appeared to be a case of ignoring an industry that enjoys more than $606,000,000 consumer market without seasonal or other fluctuations.

Obviously, a market of those dimensions should not go unnoticed, but it was equally apparent that in the midst of a war—it was just after the reverses of the autumn of 1944—no normal picture could be had of packaging practices in such an industry. Accordingly, any investigation should be deferred until a more propitious time.

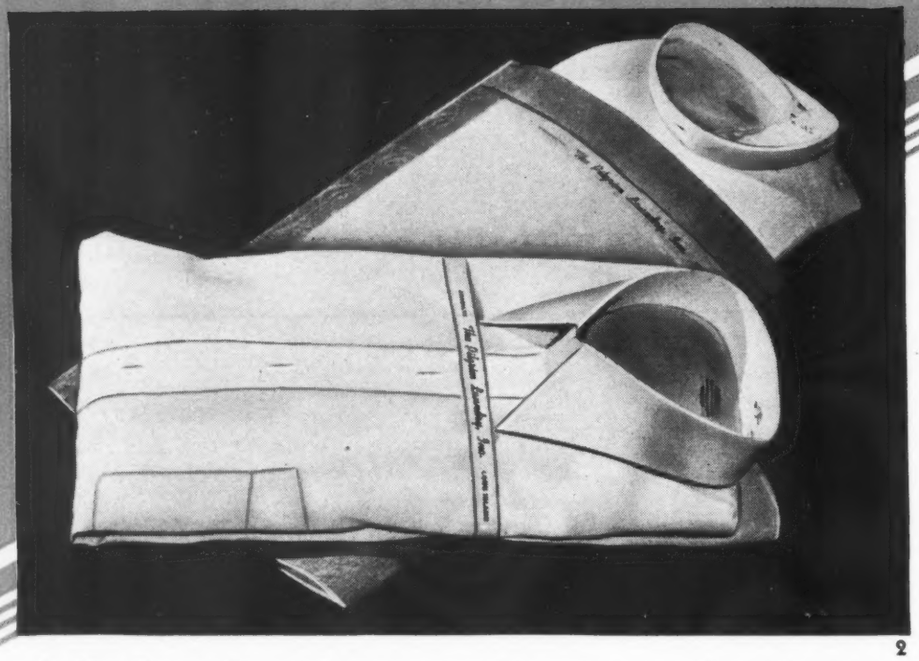
Meanwhile, however, preparations went on. Informal preliminary calls were made on laundries; lists and detailed descriptions were compiled of the various items used by laundries that were in any way connected with packaging; jointly, a questionnaire was developed by the two sponsors, to be held in readiness until the time seemed more favorable.

The problem has unusual aspects. No other packaging problem is quite like it. The product is a service, performed on the property of the customer and that property leaves the hands of the customer in anything but attractive condition. When it is returned, it must make a top-quality impression—on penalty of losing a customer!

Two factors contribute: one is the condition of the apparel itself; the other is the packaging. If the first is unsatisfactory, no amount of fancy packaging can make up the discrepancy. On the other hand, if the laundered goods are clean and inviting enough to please the customer, their attractiveness is much enhanced by the manner in which they are packaged. Careful and attractive packaging, in the eyes of the consumer, is convincing evidence that the performer of the service is genuinely concerned with the quality of that service.

On the other hand, the laundry must studiously avoid anything that savors of over-packaging, because it creates the wrong impression on the customer. A shirt, for instance, that is packaged with a collar support, a cardboard stiffener, a shirt band, a cellophane wrap, and delivered in a box, has more packaging material than necessary—it's inconvenient for the customer to

1—Shirt bands are used by almost all laundries, but few convey either name or sales message as these do.



2

2—The shirt band may be supplanted by other packaging aids. Here is a collar-attached shirt, banded, with an inside collar support; in the background is a full-dress shirt, banded with the laundry's name and further protected by a glassine envelope. In this way the user is reminded of his laundry's name and good service every time he dons a fresh shirt.

make him dispose of so much waste paper; it arouses the suspicion that so much packaging may be concealing defective workmanship and that the cost of the service is unnecessarily increased by the use of more packaging than is needed.

The American Institute of Laundering has come to a full realization of those facts. It is one of the earliest as well as one of the largest trade associations in the United States. Founded in 1883, it has a total membership of 4,500, for whom it serves a three-fold purpose. It acts as an educational institution; in normal times it conducts a school of laundry management to which men and women from all over the world come for resident study of all phases of laundry operation. A second function is the maintenance of a textile testing laboratory, cooperating with both textile manufacturers and their own members to work out correct methods of laundering various kinds of textiles. A third work of the Institute is to provide complete service to members and to this end it maintains such specialized departments as field engineering, production, research, sales promotion, accounting, publicity and advertising. Another feature is the operation of an actual commercial laundry which handles approximately 65% of the laundry work done in the city of Joliet, Ill., where the Institute is located. Members consider this laundry the "proving and improving ground" for the laundry industry.

As plans for our survey progressed, it was apparent that best results could be obtained by determining the facts about existing practices rather than asking for opinions, experiences or reactions about the more or less theoretical aspects of packaging. The questionnaire was conducted with that as its objective. The informal preliminary calls, plus the pooled information of the Institute and MODERN PACKAGING's staff, disclosed a maximum of nine different forms or kinds of material—aside from the familiar wrapped bundle—used to help deliver the laundry to the consumer: boxes, forms or shells, shirt boards, shirt bands, shirt envelopes, cases, tape, printed string and stickers. Few indeed, of course, are the laundries that use all nine, certainly during the days of war and postwar shortages. In making up the questionnaire based on these nine items, each one was described accurately so as to prevent misunderstanding as to exactly what was meant.

Both of the cooperating organizations thought it unnecessary to poll the entire membership—4,500—of the Institute. One hundred or two hundred questionnaires, distributed throughout the United States, would constitute an adequate sample. Accordingly, it was decided to "pull" every third name in a special "jury list" consisting of between 800 and 1,000 of the Institute membership, and rely on the normal percentage of responses to obtain the sample needed for an industry picture. Letters from both sponsors accompanied the 300 questionnaires that were sent out.

The responses numbered exactly 100—very convenient for tabulating and computing. Thirty-seven states and the District of Columbia were represented, and city sizes ranged as follows:

Cities over 500,000	17	responses
Cities from 100,000 to 499,000	34	"
Cities from 25,000 to 99,000	17	"
Cities under 25,000	29	"
City size not reported	3	"

Before going into the detailed features of the entire study, the tabulation following presents a quick summary of the disclosures with respect to all nine items, together with the descriptions of those items as given on the questionnaire:

Do you use BOXES?

(These are fairly large-sized, and come from the box

maker flat, ready to be set up and packed by operators in the laundry.)

YES 74 NO 26 NO REPORT 0

Do you use FORMS or SHELLS?

(These are paperboard bands, glued, about the depth of a laundry box. They eliminate the use of boxes, but require paper wrapping.)

YES 52 NO 47 NO REPORT 1

Do you use SHIRT BOARDS?

(These are sheets of paperboard or cardboard, put inside of a laundered article, to give it smoothness and rigidity.)

YES 74 NO 26 NO REPORT 0

Do you use SHIRT BANDS?

(This is the familiar paper band, placed around a laundered shirt and fastened by pasting or pinning on the reverse side.)

YES 93 NO 6 NO REPORT 1

Do you use SHIRT ENVELOPES?

(These are formed like a bag or envelope to protect the laundered shirt. Sometimes envelopes have a transparent "window.")

YES 32 NO 68 NO REPORT 1

Do you use CASES?

(These have a cardboard back with cellophane, glassine or waxed paper pasted on, to hold such articles as handkerchiefs, sox, etc.)

YES 16 NO 68 NO REPORT 16

Do you use TAPE?

(This refers to pressure sensitive or "Scotch" tape, which sticks directly to the fabrics and holds laundered articles in shape.)

YES 14 NO 79 NO REPORT 7

Do you use PRINTED STRING?

(This is a flat tape-like string, made of treated paper, raffia or fabric, obtainable in a variety of colors.)

YES 31 NO 64 NO REPORT 5

Do you use STICKERS?

(These are adhesive stickers of white or colored paper, used to indicate "FRAGILE," "WITH CARE," etc., or for special handling.)

YES 39 NO 55 NO REPORT 6

Boxes, used by about three-fourths of all those who reported, have the job of carrying a wide variety of goods—shirts, wearing apparel, fancy spreads and cloths, slip covers, draperies and blankets are among the items mentioned for which this versatile container is used. This doubtless explains why so many different sizes are reported—three sizes received the greatest number of mentions, with four, five, and two sizes next in order. One laundry even reported twelve different size boxes!

To the promotion-minded person, the surface of a container like a laundry box presents an irresistible opportunity. Do the laundries themselves regard it in that light? Apparently less than half of them do, according to the answers to the question "Are your boxes specially printed with your own design?" A comment on one of the report blanks discloses a point of view

4

The
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NO · CONNECTION · WITH · ANY · OTHER · LAUNDRY
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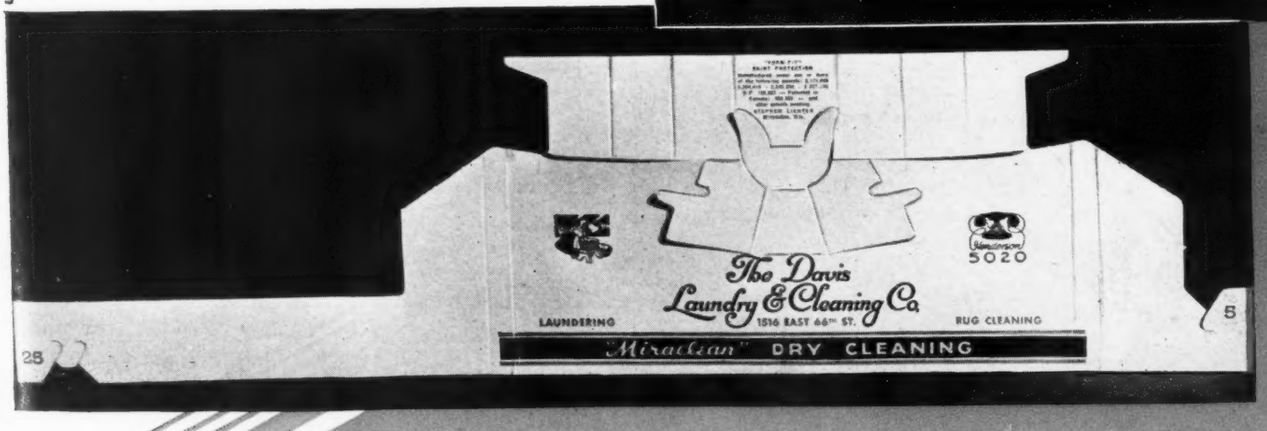
3



3—This is one of the several patented, die-cut collar supports in use. Printed like this it serves as a silent salesman. **4**—*The laundry box, widely used in many sizes, is seldom decorated as effectively as this one. Most laundries still use plain board, fail to convey name, trademark or any other kind of sales message to the customer.*

which may or may not be shared by the industry: "Boxes have little to do with selling our kind of service. It is not sold by the package but by the contents." The idea is familiar, as is its converse; the experienced packager knows, of course, that quality is the *sine qua non* for any product; that an attractive package may make an initial sale; that if quality is lacking there may be no repeat sale; that the sale of a good product is helped by good packaging. These are the axioms of packaging.

Forms or shells are reported by a little over half as used for collars, shirts, uniforms and the like. None of the users indicates that he has this piece of packaging material printed with his own design. (It should be noted that there are various syndicated services for packaging materials in the laundry field, some of them manufacturing patented devices that are often printed with the name of the laundry accompanied by something in the nature of a stock design.)

Shirt boards are used quite extensively, and in at least two distinct ways. One report noted that they are used "only in plant; they are removed when package is sent to customer," while another specifically mentioned that they were utilized to carry miscellaneous advertisements at various times, such as seasonal appeals, special offers, etc. In most cases, however, these shirt boards carry little or no printed matter—and here again the promotion man squirms because good white space—inevitably seen by the ultimate consumer—goes almost completely to waste.

Shirt bands are used almost universally, as the summary shows. They vary in width from $^5/_8$ in. to 6 in. or more. Most popular width is $1^1/_2$ in. (38 mentions) with the $1^1/_4$ in. width second (23 mentions). In 42 cases these shirt bands are printed with the laundry's own design as compared with 51 cases in which no advantage was taken of the advertising opportunity.

Nearly a third of those reporting make use of shirt envelopes, and the materials mentioned include plain paper and board, cellophane, glazed paper and glassine. No specific information is available as to whether these envelopes carry designs or not, although in 13 cases out of 28 reports mention is made of a cellophane window.

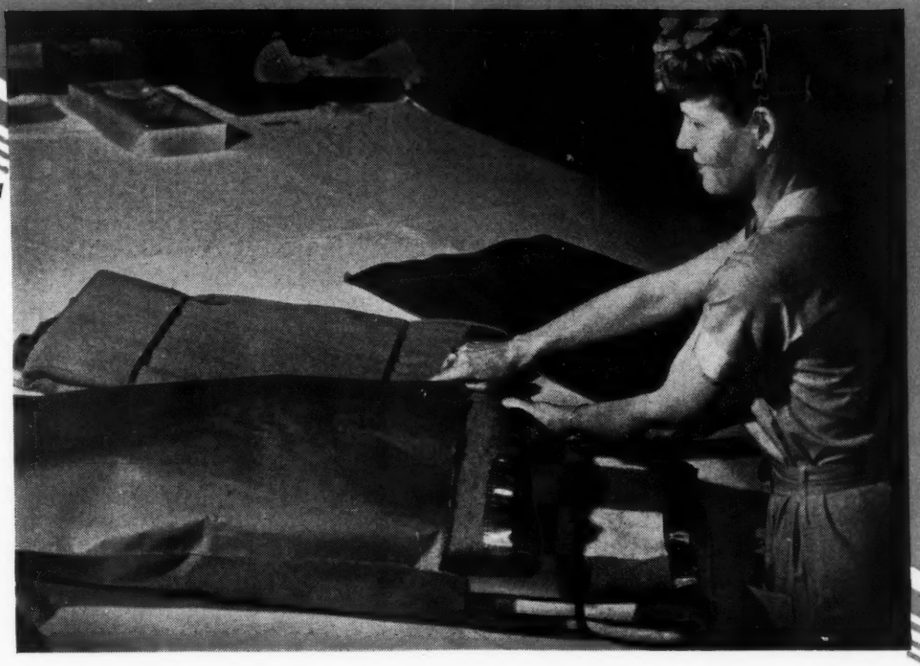
The form of package described as a "case" is reported as having a variety of uses, although only 16 indicate that they take advantage of its possibilities at all. Neckties, gloves, socks and handkerchiefs, in that order, are the goods delivered in this package. About a third of the users have their own designs printed on the material.

Only 14 laundries reported making any use of tape, and this was not for the use suggested on the question-

5

6

5—*Gummed kraft tape makes quick, effective seal for box before it goes to delivery truck.* **6**—*This delivery box, inexpensively printed, reminds the housewife of the toil of old-fashioned home washing, and suggests additional rug-cleaning and other dry-cleaning services—right at the tip of her telephone.*



7

7—The wide-awake laundries package such items as blankets with great care. After a special fold, the blankets are tied with printed ribbon, placed in a kraft bag and then tape-sealed for delivery.

naire, but to supplement other packaging material. For instance, one plaintive comment read: "We use Scotch tape to stick the plain shirt bands we have been compelled to buy during the war." Another says: "We tape all boxed articles and flat work," and the samples he sent show that he also takes advantage of this opportunity to register his company name—something which apparently few do.

Thirty-one laundries report the use of printed string, but only 10 of these have it printed with their own company name. Quite probably this material would be much more widely used if it were not for war shortages, to judge from the following comment: "Had to discontinue because of the war; will resume as soon as ever possible."

The uses of stickers are about evenly divided between convenience and promotion. Biggest single use is to indicate—for convenience of delivery man and customer—the number of bundles called for by a particular order. Advertising uses include promotion of other services, and one laundry manager found stickers a good medium for advertising for help wanted. "In the past," another wrote on the blank, "we have gotten very good results from stickers used for advertising. Of late we haven't had help with brains enough to stick them on bundles." Another significant comment: "We don't use stickers, but like the idea." Another noted, in answer to a sub-question under "stickers:" "We use bundle inserts, usually reprints of our newspaper ads."

The impact of war made itself felt in the shortages of packaging materials available for use by laundries. In many cases such notations as these appeared: "Not using now but will resume;" "Temporarily ceased." "What material is available is exorbitantly priced." One user of shirt boards very frankly admitted: "Not used since early in the war; may not return to using; have had no complaints on this score; awaiting developments."

The size of the city seems to have comparatively little bearing on the use of packaging materials by laundries, although the larger cities seem to run a little more to packaging practices than the smaller. The over-all average shows that 48.3% of the responses use the various forms of packaging material. In cities over 500,000 population, the average is 52.9%; in cities between 100,000 and 499,000 population, the average is 51.6%; in cities between 25,000 and 99,000, 48.7%; under 25,000, 43.0%.

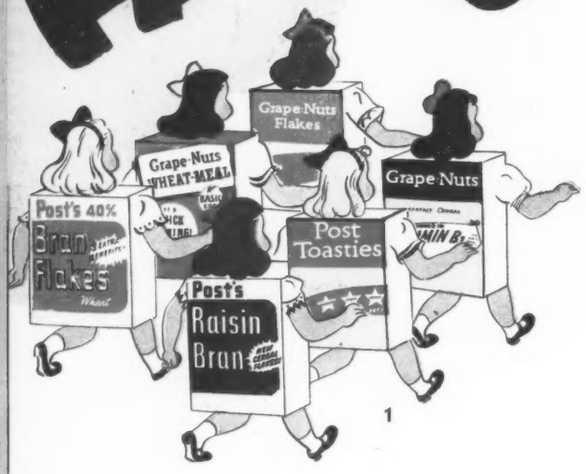
The extent to which company designs and special printing are used, in relation to size of city, is shown by these percentages: The over-all use of printing and design for the entire list and for all forms of packages was 23.6%. For laundries in cities over 500,000 the figure was 22.4%. In cities between 100,000 and 499,000, the ratio was 24.7%; 25,000 to 99,000, 10.9%; cities under 25,000, 26.0%.

The probability is that if times were normal the percentages in both of the foregoing paragraphs would make a better showing. Structurally and functionally, the package forms are quite well developed; from that standpoint further advancement is not likely to be spectacular. In the direction of distinctive and individual design, however, it would seem that there is ample room for progress. In that connection it must be remembered that a laundry is a highly competitive service business, operating on a small margin—no line for luxury packaging. But in the experience of those few laundries who have devoted careful thought to a packaging program, the results more than justified the effort and expense.

Case in point is the (*Continued on page 168*)

ABOUT FACE!

General Foods introduces the "changeover" package for Post cereal family . . . new design on front, old on the back, during an introductory period.



1

There comes a time in many large companies when it is advisable to modernize a group of packages or bring them all into a family group. Sometimes this means a radical departure from established designs that have become traditions to the buying public.

The question is always: How far can the company go in making such changes and yet retain the advantages of long-established identity from a merchandising standpoint?

General Foods has solved this problem in a unique way in its first major packaging development announced since the end of the war and a step which marks the 50th anniversary year for the Post Cereals.

All Post cereals are now appearing for the first time in grocery stores with identical package design. That the change may not be too abrupt, the new packages are presently appearing with the new design on one side of the package and the old on the reverse side.

Grocers are thus able to combine the packages in their displays so that new designs will be more quickly associated with these familiar products. The unusual "two-faced" package, also assures grocers of current stock while the package design changes are taking place. After the introductory period the new designs will appear on both faces.

Six different breakfast cereals are included in this famous line and will henceforth be associated more closely with the name of C. W. Post, founder of General Foods cereal division, who began making Grape Nuts in 1896. Later Post Toasties were added, first known quaintly as "Elijah's Manna." Now Post Toasties will be known in the line as "Post's Corn Toasties," a more descriptive product name, the company believes. The other sisters in the family are Post's 40% Bran Flakes, Post's Grape-Nuts Flakes, Post's Grape-Nut Wheat Meal and Post's Raisin Bran.

The six new packages are identical in design and color scheme with only such adjustments as are necessary in arrangement of product name, sales copy and

1—Post sisters above, marching away, show old designs. 2—Below are the new designs for front side of transition package. Illustration is reproduced from color plates used as a die-cut promotion piece that General Foods calls its "daisy chain." Old packages are printed on the back of the die-cut throw-away.

2

3

3—The six Post cereal packages as they will henceforth be seen on the nation's groceryshelves. Design is simple poster effect. Swirl treatment gives movement in display.

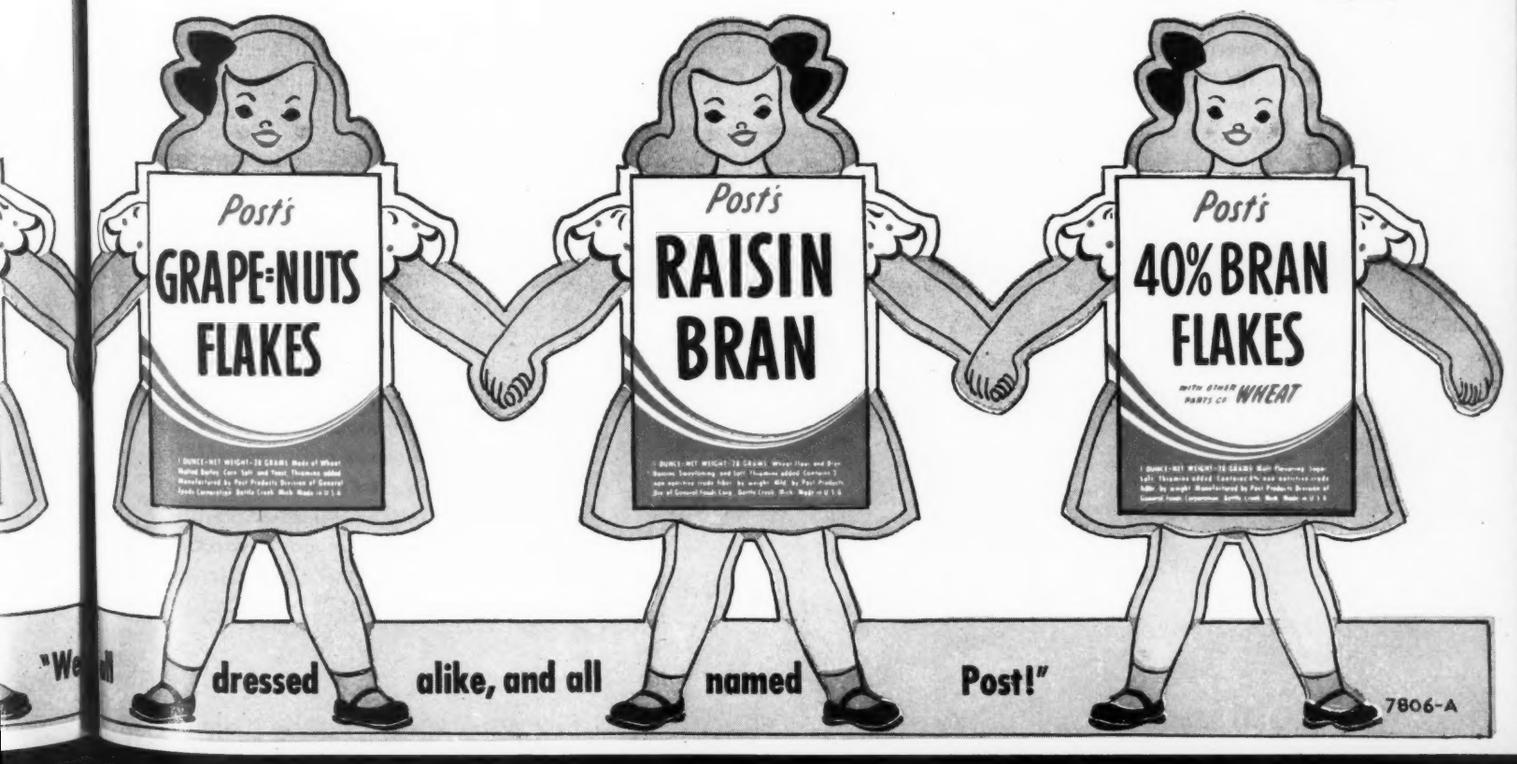
informative data. They indicate the new trend of simplicity and greater visibility in food package design to meet changing merchandising requirements of the self-service market.

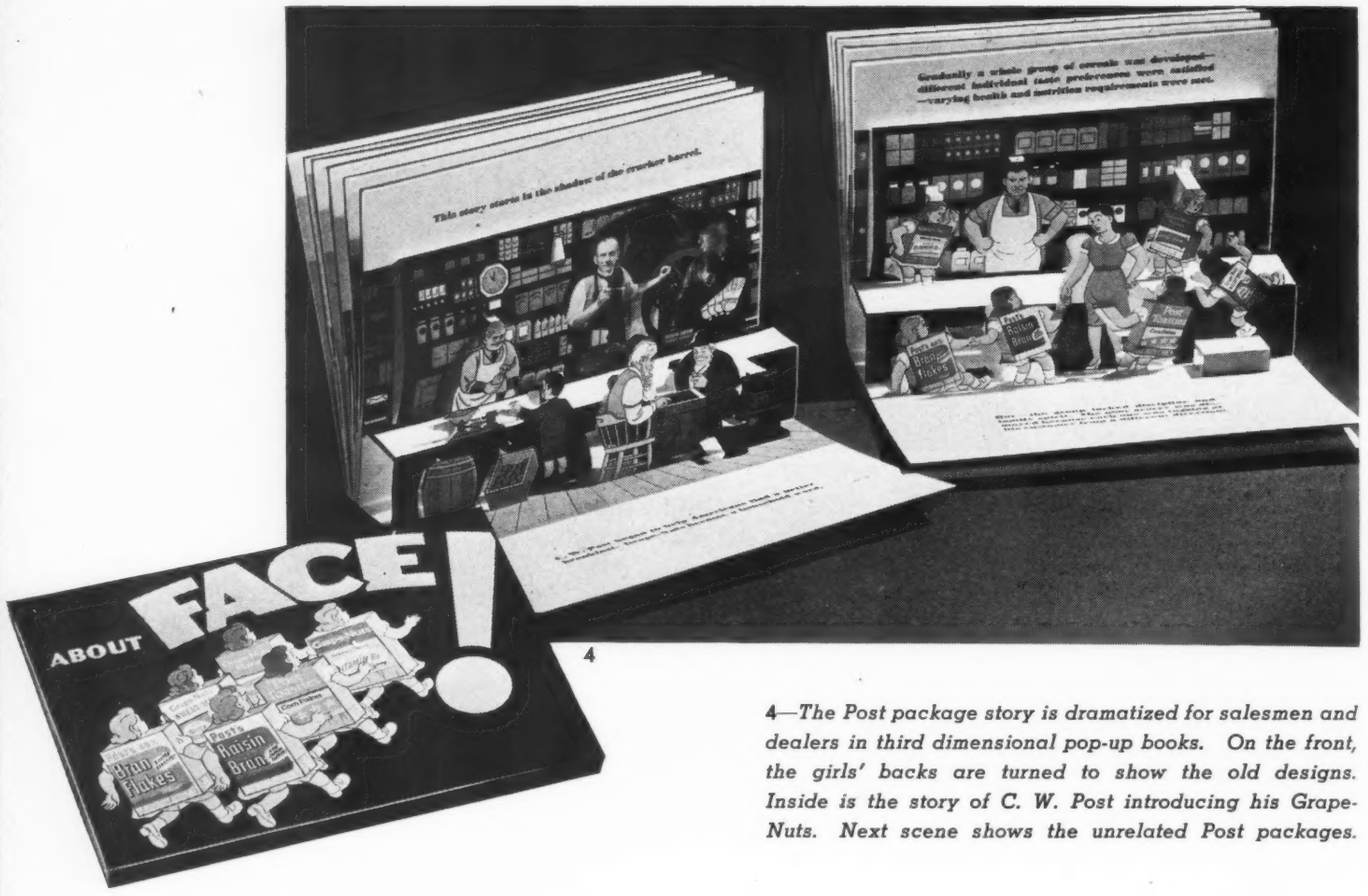
The color scheme for all is red, white and blue, selected as the colors most widely preferred by the majority of people. The name Post appears in large red italic letters at the top of a large white panel which is filled with product name in huge blue capital letters that are legible at 30 or 40 feet. A modern swirl design in red appears at the base of the package. This was used to give movement to the package and to get away from the use of a bull's eye for attention value. The swirl is so arranged that when a group of the packages are placed side by side the all-over pattern gives the effect of continuously moving waves. Weight and contents information are printed in white on the red part of the swirl.

One side panel is currently used to call attention to the new packages—pointing with printed arrows to the old side and the new side and telling that the new packages celebrate the 50th anniversary of Post cereals. Copy also directs shoppers to look for the red, white and blue box that identifies Post cereals. Below this descriptive matter are recipes and other selling copy. When the complete package changeover is made, this side panel will be devoted entirely to recipes and sell copy. The opposite side panels are devoted to information about the nutritive value of the cereals. The whole job is printed in the two identifying colors, red and blue, and the space is flexible to allow for changes in selling and informative copy as needed. The design is clean-cut and because of simplicity and bold lettering has excellent visibility value on the shelf and lends itself well to mass display.

A companion to the Post cereals packages is the Post-Tens package, containing ten packages of the six cereals combined with a miniature package of Nabisco Shredded Wheat. This combination idea started before the war to provide variety for small families and for families where each member prefers a different breakfast cereal. First combinations of this type were an assembly of ten small packages containing the various cereals, usually wrapped together by means of cellophane or glassine so that the packages, themselves, were visible through the transparent or translucent wrapper. The new

(*Page 97*)





4

4—The Post package story is dramatized for salesmen and dealers in third dimensional pop-up books. On the front, the girls' backs are turned to show the old designs. Inside is the story of C. W. Post introducing his Grape-Nuts. Next scene shows the unrelated Post packages.

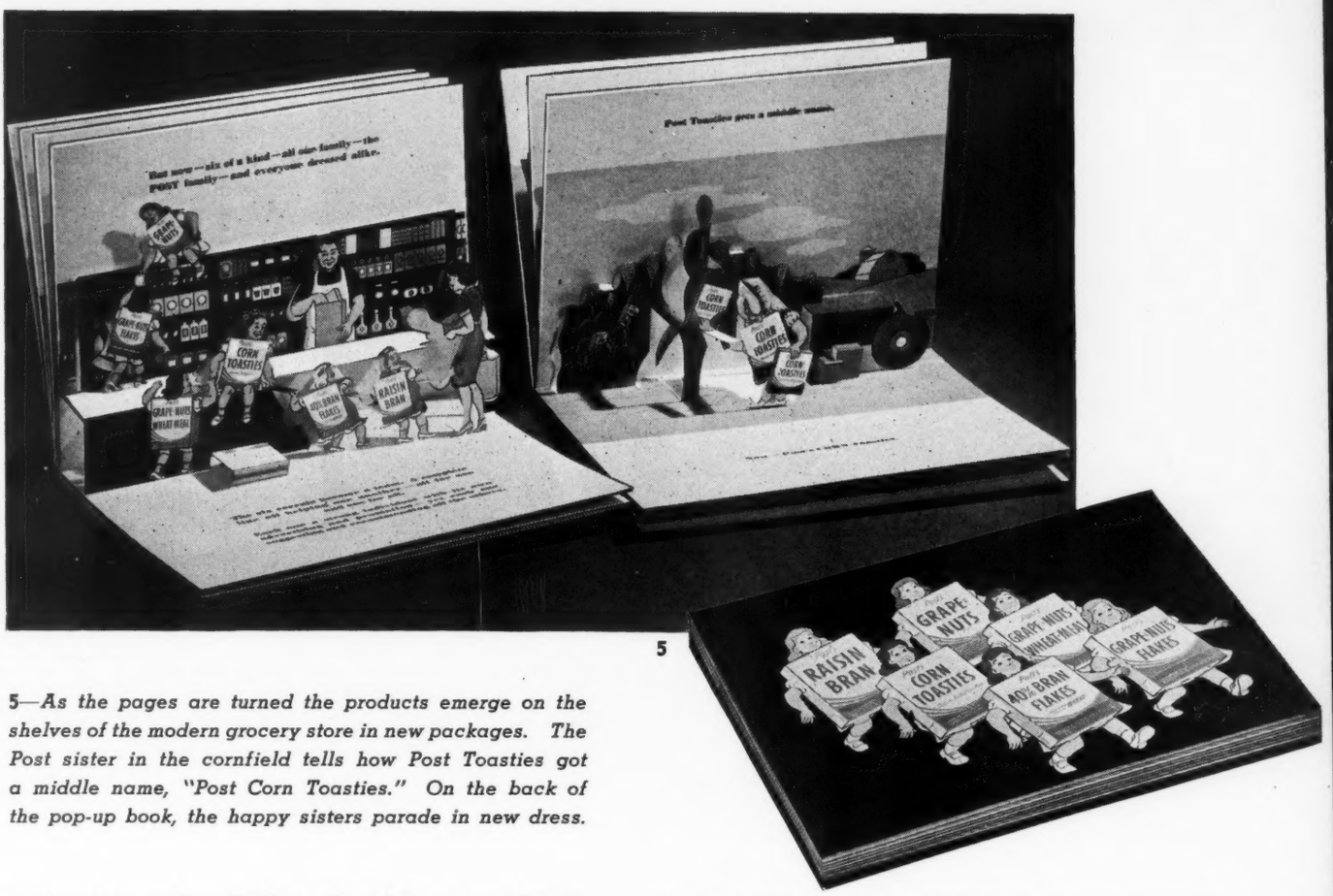
Post-Tens package is a carton containing the ten small packages. Facsimiles of the new Post packages it contains are reproduced in perspective on the face of the carton. It was decided that this carton would have excellent display value and would provide a sturdier unit for the small cartons it contained than the previously used wrappers for such combinations, which often get broken in handling.

Equally as striking as the "two-faced" packages with old design on one side and new on the other is the dramatic dealer promotional material.

Salesmen were provided with elaborate pop-up books containing the story of Post cereals in third dimension as the book is opened. On the outside is a picture of six little girls—"the six Post sisters"—carrying the package like sandwich men. On the front of the book, the little girls have their backs turned, showing the old package designs. The book is opened; the first pop-up acquaints the spectator with a view of an old-fashioned grocery store into which C. W. Post first introduced his packaged Grape-Nuts. The next scene, shows the grocery store with the whole family of Post cereals, but in their unrelated old packages. In the third scene are the new packages, going into the store side by side with the old. Fourth scene shows the eventual changeover to all new packages, illus-

6

6—Companion to the new cereal packages is the Post Ten package, containing miniatures of all the cereals combined with Nabisco Shredded Wheat—back after the war forced a vacation.


But now—six of a kind—all our family—the POST family—and everyone dressed alike.
Post Toasties gets a middle name.
GRAPE-NUTS
CORN TOASTIES
RAISIN BRAN
GRAPE-NUTS FLAKES

5

5—*As the pages are turned the products emerge on the shelves of the modern grocery store in new packages. The Post sister in the cornfield tells how Post Toasties got a middle name, "Post Corn Toasties." On the back of the pop-up book, the happy sisters parade in new dress.*

trating the excellent display value of the new packages. The fifth scene shows the Post Corn Toasties' sister in the corn field, pointing out the change in name from Post Toasties to Post Corn Toasties. The sixth scene shows the six Post sisters busily taking the orders that the new packages are helping to increase. The back of the book shows the six Post sisters walking toward you showing the faces of the new packages.

This promotional piece is so intriguing it cannot help but arrest the dealer's attention. He doesn't stop until he sees the whole six pop-up scenes. After he has seen them, the salesman has a full-color printed brochure which he leaves with the dealer, or which may be used as a mailing piece announcing the new packages. The copy reads "Something new in packages—to bridge the gap from the old to the new—a 'change-over' package—on the back the old design, on the front the new design." Then step by step with full-color illustrations, the grocer is told how to introduce the packages:

"First, put these packages on the shelf behind your present stock with the old design face out.

"Soon, your customers will discover something new has been added: a new name—a new face—new colors —new effect.

"Then, with your customers acquainted with the new design you can arrange your shelf stock of change-over packages with the new design face out.

"Thus, at no time do you have obsolete packages in your store and your customers have time to become acquainted with their old friends in their new dresses."

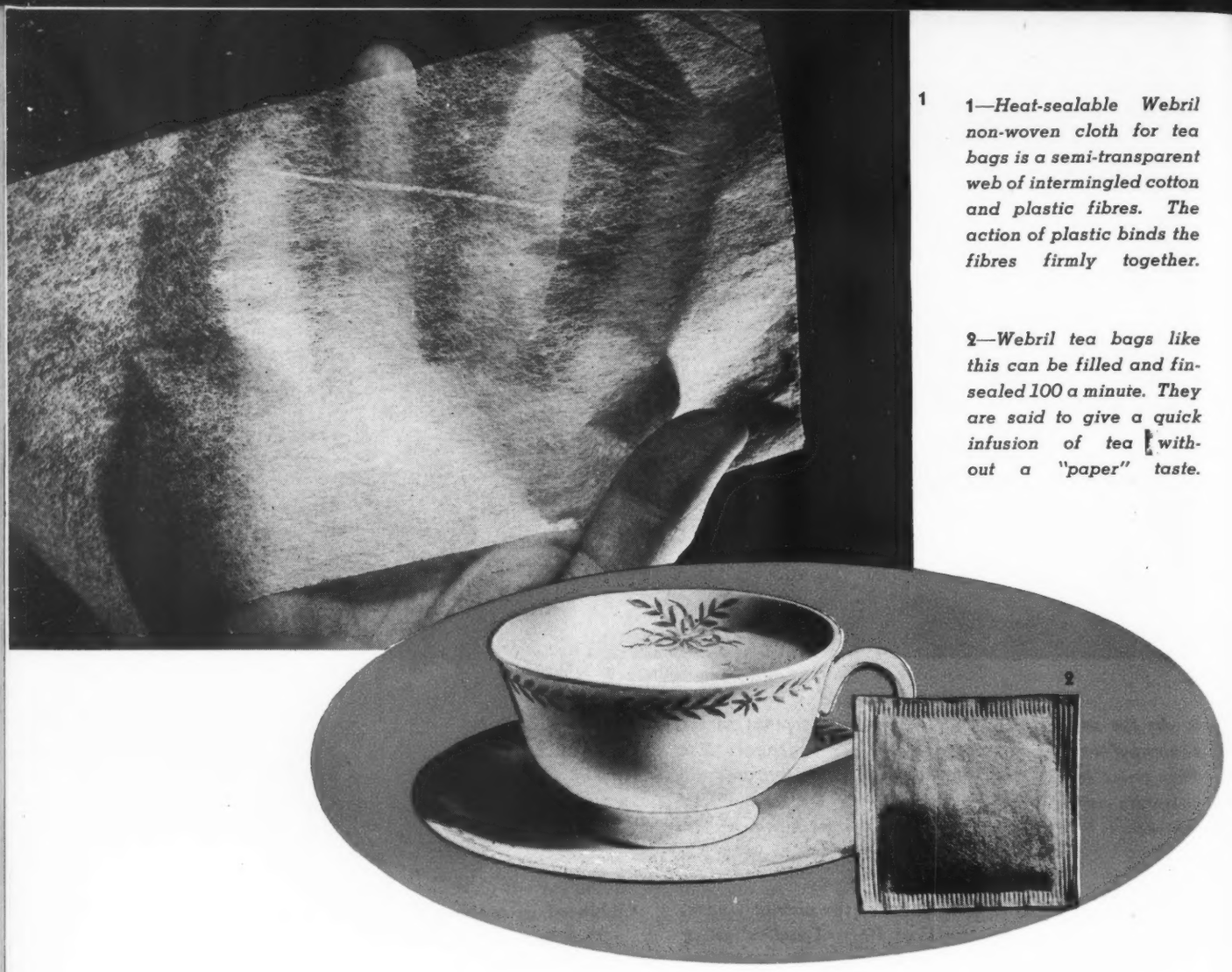
The brochure also tells that the "change-over" packages will be shipped during the introductory period after which grocers will receive all new packages.

Included inside each brochure is a die-cut folder which opens up to show the six little sisters, made like folded paper cutouts you made as a child, only they are printed in full color. On one side six little girls are wearing the old packages and are depicted with troubled faces. The copy reads "Six cereal sisters all in a row. But are they related? No one would know." The reverse side of the cutout shows them dressed in the new packages and with smiling faces. The copy reads: "The same six sisters, now they can boast; we're all dressed alike and all named Post." This promotion piece is memorable, one a grocer might take home to the kids. All the time it reminds him of the new packages, suggests the change to anyone who sees the piece.

Another brochure introduces the new Post-Ten package—"Back Again—and Better'n Ever"—pointing out how this fast-selling variety package is back again after restrictions forced it to take a vacation.

This whole package redesign program and its accompanying educational program is one that is geared to the tempo for the march into a new merchandising era.

CREDITS: *Cereal packages, Frank Gianninolo and Associates, New York. Pop-up books, designed and produced by Poetzinger and Dechert, Chicago. Brochures, The Wickersham Press, Inc., New York.*



1—*Heat-sealable Webril non-woven cloth for tea bags is a semi-transparent web of intermingled cotton and plastic fibres. The action of plastic binds the fibres firmly together.*

2—*Webril tea bags like this can be filled and fin-sealed 100 a minute. They are said to give a quick infusion of tea without a "paper" taste.*

Non-woven textiles... *their packaging applications*

Bonded webs of textile fibres—which handle like paper but have the properties of cloth—offer some interesting possibilities in packaging. They provide, for the first time, a cloth which is inherently heat-sealable. Along with natural wet strength, good absorption and remarkable filtration, a characteristic quality is ready permeability to moisture and vapor—the exact opposite of most heat-sealable materials. Because they are made without spinning or weaving, these fabrics promise to be very cheap.

One of these non-woven cotton textiles already has to its credit a big, but little-known, war job. Its heat-sealability permitted the high-speed automatic packaging of silica gel in permeable cloth bags without sewing, and thus broke a bottleneck which threatened to disrupt the vital Method II war packaging program.

This same material—a tissue-thin, semi-transparent sheet—is now being adapted, on the same type of filling and sealing machines, to the production of tea bags. A material similar in appearance, but lacking heat-sealability, was used before and during the war for sewn tea bags. These inexpensive cotton materials have many practical advantages over both gauze and paper and the expert tasters say they yield a superior cup of tea.

A third type of non-woven textile has the soft feel and appearance of flannel and is noted for its absorptive qualities. It is used as the wax-absorbing medium in a patented sewn closure for waterproof multi-wall paper bags.

The tea-bag types of materials are scarcely distinguishable from the special filter-tissue papers which have been used during the war for the same purpose, but they have the naturally greater strength of cotton when immersed in boiling water, as well as a more nearly neutral flavor.

The dry strength of the non-woven materials is, at present, not remarkable, although adequate for the

uses to which they are being put. Most of the materials have good tensile strength "warpwise," in the direction of the fibres, but are weak "fillingwise," across the fibres; they will tear about as easily as paper along a line parallel to the fibres. Work is continuing, however, on a method of cross-laying the fibres and if this is successful an all-around tensile strength approaching that of woven fabrics may be attained.

The three non-woven materials now being produced represent three distinct methods of bonding a web of fibres, but all of them follow the general principle of substituting a plastic or other adhesive binder, applied directly to raw cotton fibres, for the intricate spinning, twisting and weaving that conventionally hold cloth together. Processing of the cotton goes only as far as the carding operation; at that point, with fibres laid straight and parallel, the binder is applied.

Webril, the heat-sealing type (Fig. 1), uses thermoplastic fibres, blended right with the cotton fibres in the carding, as the bonding agent. The plastic may be cellulose acetate, Vinyon or others. A number of thin card webs are brought together to form a bat, which is then put through a specially designed calender which with heat softens the plastic fibres and presses them in close contact with the cotton fibres and with each other. While this results in a homogeneous sheet, the bond is discontinuous and the sheet has high porosity, flexibility and "drape." The type of thermoplastic fibres selected, plus variation of heat, pressure and speed of calendering, can produce bonded-fibre webs with a variety of properties. Heat-sealing qualities are determined by the type and percentage of thermoplastic fibres employed. The product varies from tissue-thin "papers," as used in silica gel and tea bags, to heavy, soft "felts."

Bonnlinn, used in sewn tea bags (Fig. 4), is made by a chemical process very closely resembling the manufacture of paper. It contains no plastic. A chemical is applied to the web as it passes through a bath, causing the fibres to adhere to each other in a somewhat discontinuous bond similar to that of Webril. In subsequent processing all of the chemical is removed, so that the final sheet contains only pure cotton; in this respect Bonnlinn is unique among the non-woven materials. The product can be varied so that the feel or "hand" is soft, moderately stiff or hard.

Masslinn (Fig. 11) is produced simply by running the thick fluffy web of pure cotton fibres from the carder through rollers where it is "printed" with an adhesive in much the same way that woven cloth is printed. The adhesive is usually a plastic resin, but it may also be a starch or gum; the printing is usually in the form of narrow, wavy lines running crosswise of the fibre direction, placed parallel about $1/4$ in. apart. The adhesive can be clear and uncolored so that it can scarcely be detected, or it can be colored and applied in a print pattern for decorative effect. The adhesive simply takes the place of the cross threads employed in weaving; it may be of various types, providing wet strength, oil resistance or other properties as desired. This fabric has a soft, flannel-like appearance and is considered superior to competitive woven goods in absorbency, surface smoothness and draping qualities. The increased softness and absorbency are the result of bonding only at intervals, which leaves most of the cotton free—not woven or flattened as in conventional paper and cloth. The same quantity of cotton which by normal spinning and weaving produces a gauze-like mosquito netting will, by this process, result in a product having approximately the absorbency of a table napkin.

Cloth made for the first time without spinning or weaving is coming into use in the packaging field. The materials, some of which are heat-sealable, are being used for silica gel and tea bags and in waterproof bag closures. Promising to be very cheap, the fabrics will be considered for many similar packaging applications—wherever the properties of cloth are desired at a cost approaching that of paper.

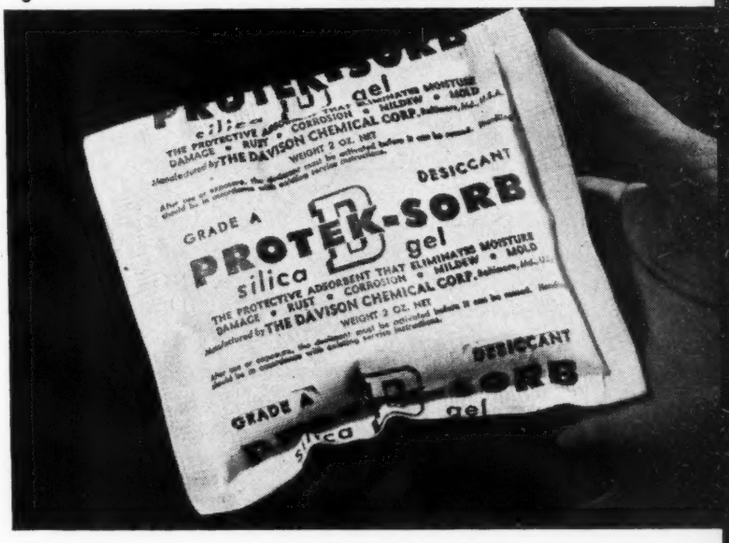
Tea bags

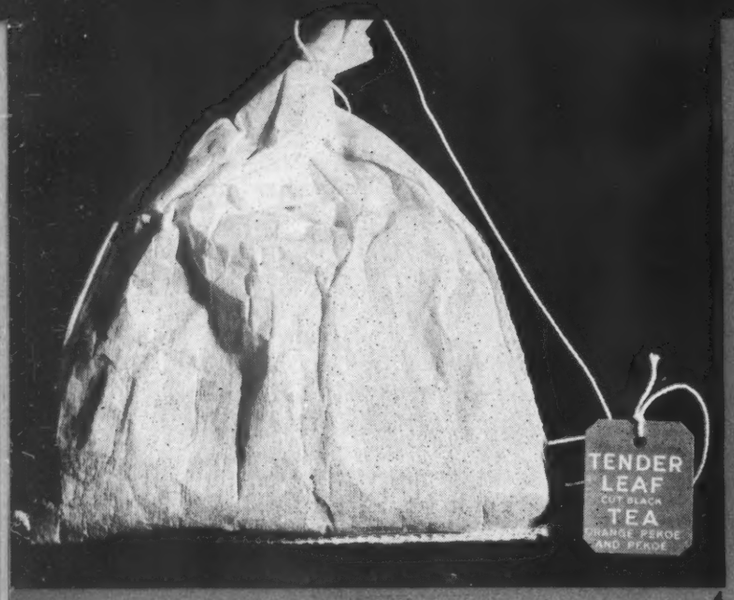
A good tea bag must be sufficiently dense to preclude the passage of fine, dust-like particles into the brew; at the same time, it must be perfectly porous to the passage of liquids and vapors. It must retain its strength and properties in boiling water. It must impart no foreign taste or odor to the brew. It must be very cheap and capable of high-speed automatic filling and sealing.

Believing that the light, non-woven fabrics might

3—Material similar to tea bags, laminated to gauze for extra strength, provides this siftproof, highly permeable, heat-sealing package for silica gel. The non-woven cloth is on the inside. High-speed production of this package broke a wartime bottleneck in Method II packaging.

3 PHOTO COURTESY DAVISON CHEMICAL CORP.





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4—Non-woven Bonnlinn cloth, which is pure cotton with no plastic, is used by Standard Brands for this sewn and tied iced-tea bag. 5—One tea-bagging machine (Fig. 6) staples on string and tag if desired. Tag can carry brand.

meet all these requirements better than gauze (which is comparatively expensive) or paper (which loses strength in hot water and may impart a taste), Standard Brands some time ago experimented with both Webril and Bonnlinn. Several sizes of both hot- and iced-tea bags were marketed in these materials, formed into bags by sewing. It was found that a quicker and better infusion in brewing tea was obtained.

Shortly afterward, Webril was drafted for its war job on silica gel. Standard Brands has continued, however, to use the non-heat-sealing Bonnlinn for its cup-size iced-tea bags, which are formed by doubling over the cloth, sewing along two sides, filling and closing by gathering the top and tying tightly with a string. Efforts are being made to devise ways of heat-sealing Bonnlinn, possibly through a coating.

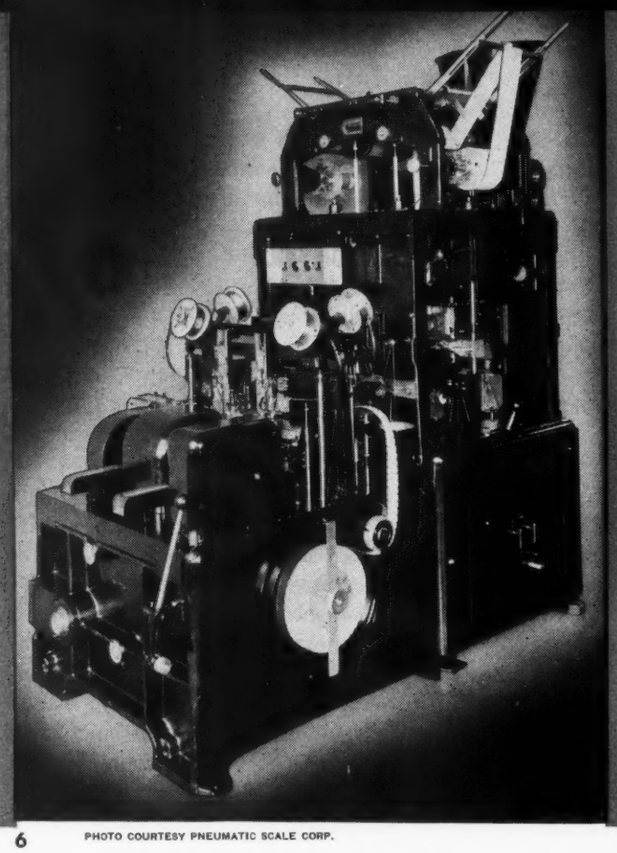
The heat-sealable Webril is cheaper than gauze but currently slightly higher than the new heat-sealable paper materials. Whether the advantages of a cotton material over paper will outweigh the additional cost—particularly for the small, cup-size tea bags—is a debatable question, but the consensus of opinion in the trade is that Webril has a big future in this field. Further production experience may make it fully competitive in price.

This prospect is heightened by the fact that two manufacturers have developed special machines for the high-speed filling and sealing of heat-sealable tea-bag materials and a number of these machines are already in use by tea packers. Although these machines are currently using the paper materials, they are designed to handle Webril with equal facility. Production facilities for Webril are being expanded; its 100% assignment to silica gel bags has been lifted; a new special non-toxic and taste-free grade for tea bags is being perfected and the material will soon be available to tea packers.

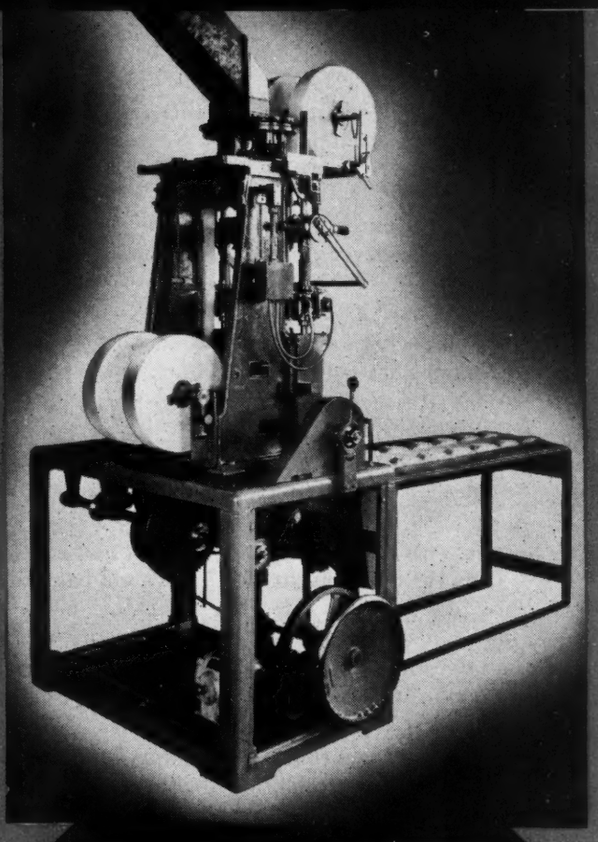
A number of tests have been run with the Webril type of material, sufficient to give some idea of cost. One estimate, based on a current operation using paper in a heat-sealing machine, is that the one-cup tea bags with Webril, unlabeled, would cost 60 cents a thousand filled. This allows 20 cents a thousand for machine cost and 40 cents for material. Other estimates range up to 70 to 80 cents a thousand total cost for packaging in unlabeled Webril.

One of the machines that will handle Webril is a duplex set-up (Fig. 6) capable of packaging two brands of tea simultaneously, at the rate of 180 bags a minute. There are two separate feeding and mechanical heads, each of which will turn out about 90 heat-sealed envelopes per minute. A single strip of the bag material is doubled over, filled with tea at the proper intervals, heat-sealed on three sides and cut off. At the same time, a string and tag are applied by the use of a single wire staple in such a way as to allow the consumer to pull the tag and have an extended grasp while dipping the bag in his cup (Fig. 5). The string is automatically wrapped around the packet and the tag folded under, making a compact package for cartoning.

The second machine (Fig. 7), an adaptation of the Transwrap, which is familiar to packagers for its wartime job on fin-sealed ration packets of cellophane, films and foils, produces similar tea bags which are heat-sealed on all four edges. Fed volumetrically from a single circular pocket feed, its two outlets will produce 35-gram tea bags at the rate of 100 a minute. Packed 16 to a carton, the bags come out in squads of 8 from



6 PHOTO COURTESY PNEUMATIC SCALE CORP.



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8 PHOTO 7 COURTESY STOKES AND SMITH CO.

6—New duplex machine for heat-sealed tea bags produces 180 bags a minute, can package two brands simultaneously. This machine is fitted with a stapling mechanism for attaching strings and tags. **7***—This machine produces four-side fin-seal, is an adaptation of model previously used on other heat-sealing materials. Packages emerge at right, in two rows, in groups of eight.* **8***—For stringless package, new printing inks have been developed which are said to be non-toxic, taste free and color fast in boiling water. This package is in the experimental stage.*

the two outlets and are simply scooped right into the box.

The latter machine, which is adjustable to sizes up to 1 oz., applies no strings or tags. Some professional tea tasters contend that the string may affect the flavor of the brew and that it is just as easy to drop a bag into the cup and dip it out with the spoon. Either machine will, of course, produce a bag without a string.

Among the tea packers already operating one or both of these types of machines are Joseph Tetley & Co., Inc., New York and the William S. Scull Co., Camden, N. J.

The Scull company, which markets cup-size stringless bags under the name of "Boscul Tea-Paks," plays up in its labeling and advertising the idea of "free-flavor Boscul Tea-Paks . . . without the flavor-spoiling wet strings and tags." It also stresses that "all the full, fragrant flavor . . . pours through the new, sheer, free-flavor" bag material.

The bag without a tag has, of course, the problem of brand identification. This is partly offset by the colorful carton in which Scull packages its 16 plain bags for family use. When the individual bag is served with the cup, however, as in a restaurant, there is no identification.

This problem may be solved by the recent experimental development of printing inks which are said to be completely non-toxic, taste-free, color-fast and insoluble in boiling water. Bags of the paper material (Fig. 8) are colorfully printed with the name of the brand and packer. This process, marking the first time that a tea bag has been imprinted, is equally applicable to the non-woven fabrics.

Used on the heat-sealing machines, the printed bag material may be registered for cut-off by an electric-eye

mechanism, or continuous printing may be used and the material cut at random.

Silica gel bags

The problem of packaging silica gel, itself an important war-developed packaging material, is an unusual one.

To be most efficient in absorption of water vapor within a package surrounding a product susceptible to corrosion, silica gel in small packets must be placed at various strategic points. The more permeable the material holding the silica gel, the greater its efficiency will be. Yet it is very important that none of the dust-like fines from the silica gel crystals be allowed to escape and come in contact with a finely surfaced machine part.

Thus the requirements for a silica gel bag are something like those for a tea bag: impermeability to fine solids, but the utmost *permeability* to water vapor.

At the start of the war, the production of silica gel as a desiccant was comparatively small and it was successfully packaged in woven and sewn bags of jean cloth. But within a short time other military needs made jean cloth very difficult to obtain, and at the same time the demand for bagged silica gel for military packaging was mounting by leaps and bounds. At peak, The Davison Chemical Corp. was required to produce over 500,000 bags of silica gel a day, in sizes ranging from 5 grams to 4 ounces. The stitching and handling of ordinary cloth bags became a bottleneck; it required equipment and labor impossible to obtain.

A search was started for an alternative material which would meet military specifications by being the equal, functionally, of jean cloth, but which would lend itself to more rapid automatic production. It was felt that adaptability of a new material to automatic heat-sealing, eliminating sewing entirely, would be an inestimable advantage.

Many kinds of materials were examined and tested in the Davison laboratories. At first great hopes were held for the application of transparent films such as cellophanes, vinyls, acetates and various laminations. But all attempts to use such materials were defeated by the very properties most ill-suited to the necessary water-vapor transmission. Producers of these materials had spent years developing them with a converse view; namely, that of making them barriers to water-vapor transmission. This work could not be undone.

Another objection to the transparent plastics studied was that of embrittlement. When in actual contact with the desiccant, they lost their natural moisture content to the desiccant and became brittle, with great loss in tensile or bursting strength.

Finally attention turned to Webril, which was known

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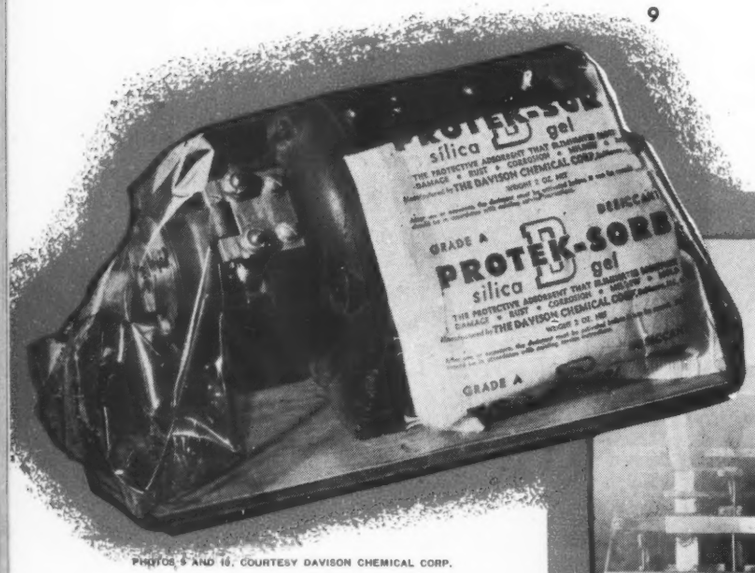

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PHOTOS 9 AND 10, COURTESY DAVISON CHEMICAL CORP.

9—Heat-sealed silica gel bag makes a clean, efficient package for this typical postwar dehydrated pack. Printed bag adds sales appeal to motor by stressing silica gel's function of preventing corrosion. **10**—*Davison plant has batteries of these machines turning out heat-sealed silica gel bags, in sizes up to 4 oz., at the rate of 60 to 80 per minute. An electric eye regulates the cut-off.*

to have been used in the production of tea bags closed by heat-sealing. This fabric was quickly found to possess the three most essential qualities: very high permeability to water-vapor, siftproofness and adaptability to automatic handling in heat-sealing machines.

The one objection to the material as it existed was that of low strength in the filling. Unlike tea bags, silica gel bags might be subject to considerable rough handling in use and had to be proof against rupture. This weakness was overcome by the lamination of the Webril to a cotton gauze, which served to increase tensile strength without reducing water-vapor transmission.

The material comes to Davison in rolls, already laminated, and is printed in black on the gauze side—which forms the outside of the package—with the silica gel trade name and trademark, instructions for use, etc. The material is simply fed into a special Transwrap machine (Fig. 10), and silica gel poured into the supply hopper. The silica gel is measured volumetrically and fed through an adjustable circular pocket feed. There are two feeding tubes. Two strips of the Webril material are brought together face to face and formed around a feeding tube—just as cellophane is handled in similar machines—the silica gel is deposited, an electric heat-seal is made on all four sides, and the packets are then cut off by electric-eye registration. The machine produces packages ranging from 5 grams to 4 oz. in size at the rate of 60 to 80 a minute.

This marked the first time that cloth had been directly heat-sealed in a package and the machine which handles the largest silica gel package (approximately 5 by 7 in.) is the largest of its type ever built. Special adjustments had to be made by the machine manufacturer, not only for the feeding of the cloth material but in sealing temperature. The comparatively heavy cloth requires a sealing temperature of about 400 deg. F.

This development was not only a great boon to the wartime packaging program but it promises to facilitate the extension of desiccant packaging to civilian products such as foods and drugs as well as metal parts. It lowers the production cost of silica gel and presents it in convenient form for handling in commercial packages.

Multi-wall bag closures

The flannel-like non-woven cloth, Masslinn, has made an important packaging contribution as the wax-absorbing inner component of the Aquatex closure (Fig. 13) for multi-wall paper bags. The moistureproof and water-vapor-resistant shipping bag made possible by this patented closure has been one of the significant packaging developments of the war. Such bags have been floated over Niagara Falls, dropped repeatedly from a 40-ft. height to a cement floor, stored outdoors for a year and submerged in water for 24 hrs. without damage to their dry contents. The package was cited by the American Chemical Society as one of the outstanding technical developments of the war years.

The closure is made by sewing a special duplex tape around the top of the bag (*Continued on page 168*)

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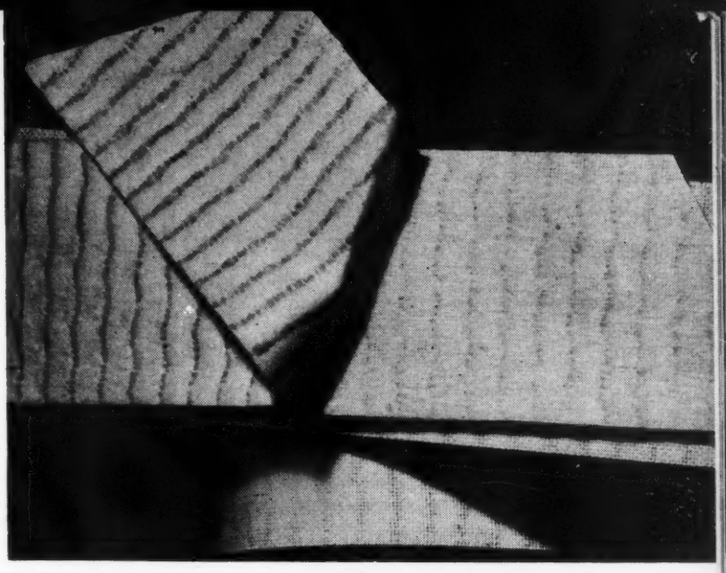

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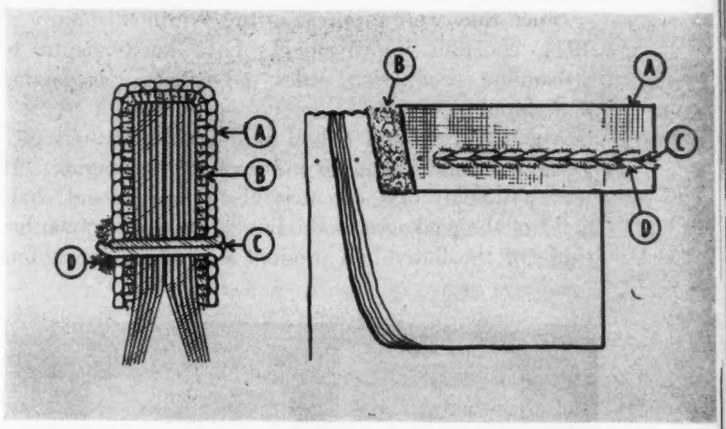

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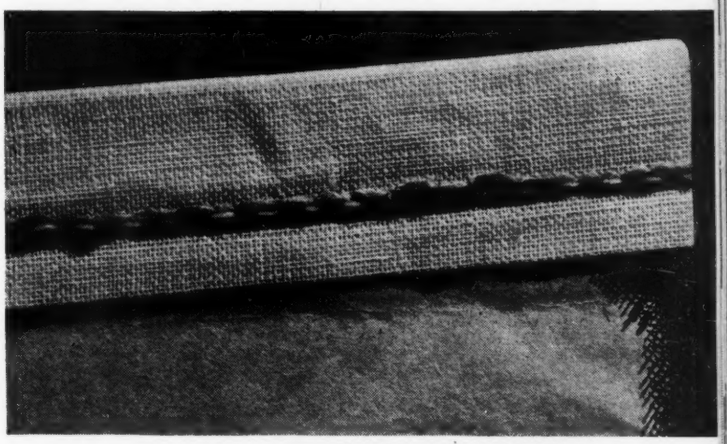

DRAWING 12, COURTESY BEMIS BRO. BAG CO.

11—*Close-up of textile strip which forms Aquatex closure for waterproof multi-wall bags, with Masslinn ply turned back from crinoline. Non-woven Masslinn is used for its superior absorbency.* **12**—*Amplified cross-section and stripaway show Aquatex closure applied to 5-ply multi-wall paper bag. Closure tape is made of starched crinoline (A) laminated to Masslinn (B). Tape is sewn to bag with special thread (C). Filler cord (D) under needle thread acts as wick, drawing wax into sewing holes. Fibres of Masslinn also help wick wax and in addition serve as reinforcements for wax coating to prevent scuffing off.* **13**—*Photo close-up of bag top closed with Aquatex.*

Face-lifting . . . for the Whitehall family

Familiar to every radio listener and patron of the corner drug store are "Anacin," "Bi-So-Dol," "Kolynos" "Freezone" and "Hills" cold tablets and nose drops.

These products are distributed by the Whitehall Pharmacal Co., now the over-all packaged drug division of American Home Products Corp.

For years these individual products have enjoyed nation-wide acceptance, known by their trademarks and their familiar packages.

Since they were grouped in the Whitehall family in 1944, constant improvements have been sought to streamline production, sales, advertising, packaging and shipping.

About a year and a half ago, a concentrated program was undertaken to improve the packaging. It was a difficult task, because of the traditional character of the packages in the line—each well known because of the individual product it contained, yet few with any relation to others in the Whitehall family. The company felt that many subtle—even radical—innovations could be made to equip Whitehall to meet the increasing competition of the changing merchandising picture.

The times, it was felt, were extremely favorable for such changes. Change was in the air. Everyone was asking, "What will the car of the future look like?" "What will the refrigerator of the future look like?" "What will the plane of the future look like?" The public expected changes and was ready to accept them.

When the new packages went on sale recently the results of Whitehall's comprehensive redesign program began to show up in the nation's drugstores. Some of the changes are so canny that the average shopper may not even notice them, except that subconsciously he will be attracted by greater visibility, by improved lettering, more pleasing coloring combinations on a carton, a label or a counter dispenser. Changes on the various sized packages in the major product groups involved hundreds of variations. Most of the innovations were a matter of eye appeal rather than physical changes in the package materials.

The program originated in the advertising and merchandising departments. Their first step was the preparation of a presentation to convince top management and other departments of the need of redesign.

This presentation, titled "This Changing World," suggested convincingly the advantage of the present times to make the changes and pointed out the reasons: to increase visibility, to suggest greater quality, to increase convenience and protection of the product. Numerous examples of outstanding package changes for other well-established products were cited with illustrations showing the changes.

The importance of change was stressed also as a progressive policy which has helped American Home Products to achieve its enviable record of operation during the past 19 years: net sales volume from $4,400,000 in 1926 to more than $100,000,000 last year.

"This growth didn't just happen," the presentation states. "Constant streamlining, changing, improving

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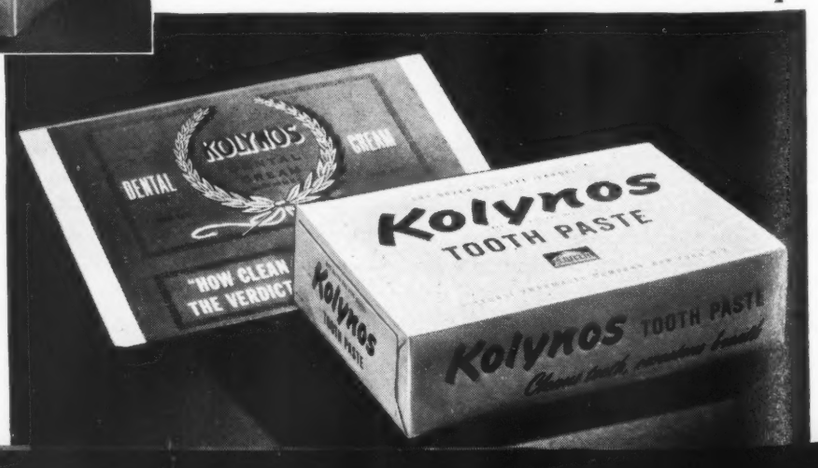
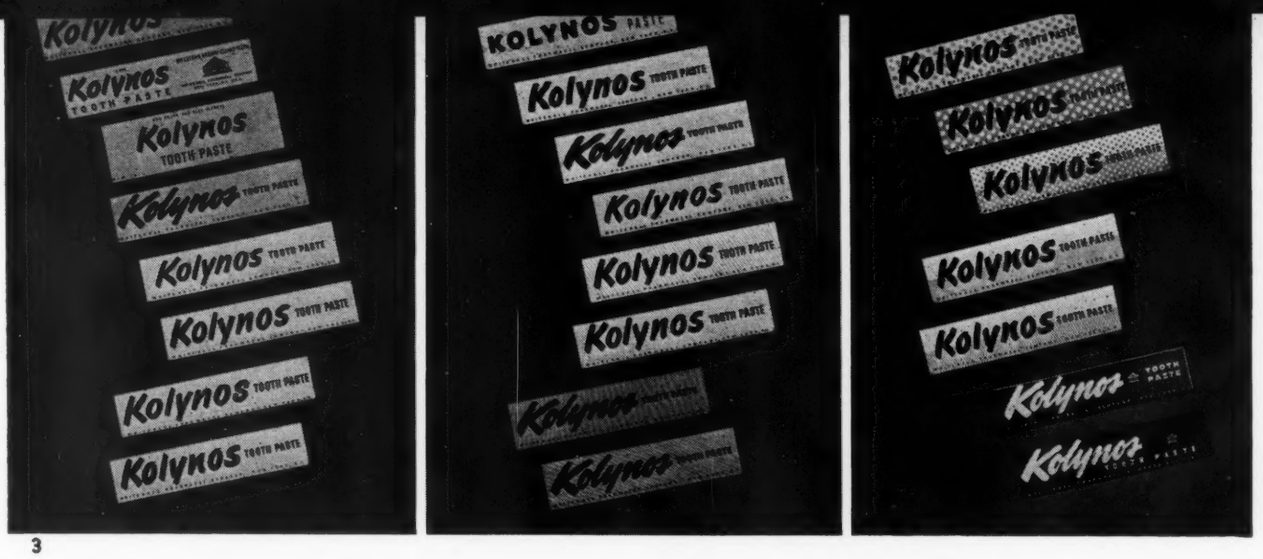


1—Old Kolynos package, left. New package, right. New lettering is predominant feature and Whitehall trademark appears on front panel.
2—Dozen packer now carries same design as all Kolynos cartons and tubes.



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3—*These trial designs give some idea of what is involved in redesigning a famous package. Whitehall says these are only a few of the variations considered before decision was made on Kolynos change-over.*

made this success possible." A strong argument was given for attractive packages to compete with the new ones that would crowd druggists shelves with the return to civilian lists of metals, metal foils, plastics, etc.

The planning committee proposed the commissioning of a package design specialist to do the job—pointing out that past experience of many leading manufacturers showed that it is cheaper in the long run to hire an expert who knows color, lettering, materials and all the production details involved in such a project.

The planners came to MODERN PACKAGING for information on what others were doing to have even more convincing arguments for their proposed package modernization. They pointed out to their management how important it is to change while everybody is making changes, that by waiting they might miss out on "today's golden opportunity." "The time to change is now," they said, "in this era of short stock when nothing stays overlong on the druggists' shelves so that the old packages will be absorbed normally and the new ones will filter through automatically without undue disturbance to anyone."

A complete study was made of the company's own packages in comparison with those of its competitors. One-by-one the Whitehall packages were reviewed to see how they stacked up against competitors. Scores of dummy packages were made, studied and then discarded. Sometimes the designs were perhaps more effective from a pure design standpoint, but were discarded because they did not measure up on all scores for the company's merchandising program.

The plan is to make this package program a con-

4

4—Color plates for 10-cent sized Kolynos carton were used in printing this tip-on on special paper to show actual color and design of the package. Regular printing is on standard carton board.

5

6

5—Bi-So-Dol group is improved with strengthened lettering and more interesting colors shown by the tipped-on label at top left. **6**—*Change-over is strikingly illustrated by a comparison with these old packages.* **7**—*Old and new Bi-So-Dol counter dispensers.*

7

tinuing study—one that will constantly make improvements that are in keeping with current trends, one that will eventually effect, by a gradual transition, even more revolutionary departures from established colors and design.

There had to be a reason for every change. "Commandments" of perfect package design were set up. Each design had to:

1. Appeal to the eye.
2. Have quicker recognition value.
4. Be appropriate.
4. Be easily readable; have high visibility.
5. Possess suggestive selling power or a quick sales message.
6. Wear well—not be "faddist."
7. Be adaptable to practical manufacturing.

In addition, the designs had to be equally effective in large or small space, on a car card or in a small advertisement and recognizable even on the high shelf in a dealer's store.

The illustrations on these pages, showing old and new packages of leading Whitehall products, together with the tipped-on color samples of labels and the "Kolynos" carton design, indicate the tremendous job that has been done in this continuing packaging program.

An indication of the size of the undertaking is further given by the photos showing a "few" of the designs considered, then discarded, in arriving at the new design for "Kolynos" toothpaste.

The primary object in planning the new "Kolynos" carton and tube in three consumer sizes is to increase legibility and display value. The wreath design on the face of the carton has been removed for domestic packaging, leaving the name "Kolynos" in its distinctive lettering as the predominant feature of the new package. A new fresh, cool green color has been used against a delicate, appetizing yellow background. The package conveys a new quality of freshness. A

8

***8**—Left, old Anacin packages; right, new packages. Tipped-on label shows how famous Anacin green has been retained; lettering and selling copy improved.*

dozen packer, formerly entirely out of keeping in color and design with the rest of the "Kolynos" family, now carries the same design as the cartons and tubes.

The Whitehall trademark—a stylized line drawing that gives the effect of a sturdy classic edifice in which the letters "Whitehall," become the columns supporting the building—appears in green on the yellow background of all the "Kolynos" packages. This same trademark reproduced in colors to harmonize with each package group appears on every new Whitehall package, definitely identifying each item as a product of Whitehall Pharmacal Co.

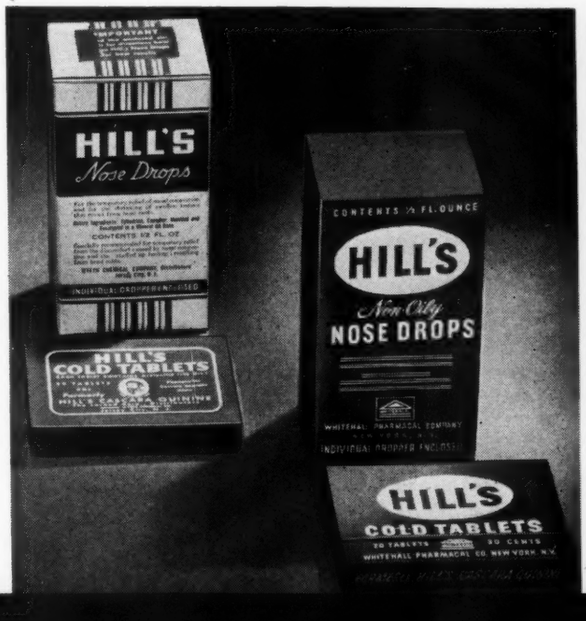
A test study among 50 men and women showed that 42 preferred the new "Kolynos" packages, while only 8 preferred the old ones.

In the development of the new packages for the "Anacin" group, more noticeable changes are apparent in the cartons and glass containers for the larger sizes than for the boxes of 12's and 30's. The famous "Anacin" green has been retained on cartons and bottle labels, the yellow has been lightened, but the green panel carries the name, "Anacin," in large clean white letters. Selling copy has been strengthened by greater emphasis on the words, "Pain—headache—neuralgia." The characteristic curved "Anacin" lettering has been retained but is greatly modified and modernized.

As soon as metal is available all "Anacin" 12's and 30's will appear once again in lithographed metal containers in place of the wartime paper box. The design of these tins retains the old stand-by colors—green, yellow and red—but color values and lettering have been improved to give a more pleasing effect and greater readability.

Attention value of the "Bi-So-Dol" group has been greatly increased by strengthened lettering of the product name, which appears in a cameo or oval. A softer powdery blue background for the oval and printed matter gives all the packages a richer appearance than the navy blue formerly used. A softer yellow eliminates the garishness of a previously used yellow. Copy

9



10

***9**—Hill's nose drops and cold tablets, formerly with no family relationship, will henceforth appear as shown at right in photo—maroon and white with modernized cameo design.* **10**—*New Petro-Syllium package (right) gets face-lighting treatment to emphasize product name.*

with greater selling power has been used on both the "Bi-So-Dol" powder and mint packages, and has been given more prominent position. Use of sans serif type gives greater legibility to the small type such as that used for description of active ingredients. The trademark, "Whitehall," appears on the face of each "Bi-So-Dol" package in white on a blue panel. Convenient dozen packers, carrying powerful sales messages, open up into counter dispensers for the "Bi-So-Dol" mint packages back on the market in metal containers and are printed with the new identifying design and color scheme of the "Bi-So-Dol" family.

The cameo or oval has been used for the identifying portion of several other Whitehall products. "Hill's" cold tablets in metal containers and "Hill's" nose drops in a bottle and carton are in new packages which carry out this idea. The aim in this case was to make the packages uniform. Previously the carton for the bottle of nose drops was printed in green and yellow and had absolutely no relation to the maroon and white box for the cold tablets. Now both are a bright shade of maroon with the same design and color arrangement. The old portrait which formerly appeared on the package has been replaced by the new Whitehall house brand.

Another much improved package has been made for Whitehall's "Petro-Syllium"—an emulsion of mineral oil and psyllium jelly. "Petro-Syllium" is a difficult name to remember and therefore it must be given plenty of emphasis. This has been done by printing product name in black on a white cameo oval. A medium blue background on one package and red background on the other helps denote the differences in the formula.

An interesting example of how a package with photographic illustration can become dreadfully outmoded is indicated by the old package of "Hair Groom." On one side is the illustration of the patent-leather-haired glamour boy of the 20's. On the reverse side is his flapper girl friend of the same era.

The new packages have none of this type of illustration to go out of date with coiffure fashions. Instead, the new design is an interesting type treatment with strong lettering of product name and sales copy about the use of the product. These packages are also merchandised in packers which open up into striking display cartons for the counter.

The company's "Freezone" packages are others which have undergone the streamlining process to give product name greater visibility. They are easier to identify and more pleasing in color scheme. The same kind of face-lifting treatment has been given to the package for "Heet," a liniment analgesic. The color is orange, suggesting warmth, and the heat idea is carried out in a design of flames arising from the letters in the product name.

Whitehall's whole program is one that demonstrates how old-fashioned package design can be modified and modernized without sacrificing too abruptly long-established identification. It also shows how a packaging program in a company of Whitehall's proportions can be a continuing study of designs with flexibility to accommodate quick changes in selling messages, of opportunity for gradual transition from old over-the-counter drug package designs of a past era to the refinement in appearance demanded by the modern drug store.

CREDIT: *Package designs, Georges Wilmel, New York City.*

11—*New Heet package, right, has orange background, suggesting warmth. Sales copy is given more emphasis.*
12—*Photo illustrations may date package. Hair Groom, without photos, will not be outmoded by fashion changes.*

11

12

1—*Dispensing carton is slotted to allow desired amount of elastic tape to be pulled out; keeps remainder clean for future use. Note 6-in. rule on the bottom of the carton.*

Dispenser carton *to measure elastic braid*

Elastic braid, a four-year war casualty, has long been sold from open rolls, measured out in yards or quarter yards as required. "Utilastic," the elastic braid manufactured by Flexnit Sales Corp. of New York, has re-appeared recently on retail counters in one of the first consumer-size packages for this type of product. It is a self-dispensing, self-measuring carton, attractively designed to catch the eye.

The braid, in two and a half yard lengths, is folded in such a way that it can be drawn through a small die-cut slot in the carton and cut off in desired lengths. The cut end can then be slipped back through the second slot to protect it from fraying.

Several advantages for this type of packaging are claimed by the company. The average woman does not know to the inch the amount of tape she needs at any one time. She, therefore, buys too much rather than too little and the extra pieces are usually soiled or lost in her sewing basket before she needs it again. With the dispensing carton she buys two and a half yards at one time and the unused portion is protected and clean for future use.

Imprinted on the top of the carton is all the information the customer wants to see at a glance: yardage, width—$^5/_8$ in., $^1/_2$ in., $^3/_8$ in. or $^1/_4$ in.—and price. As an added convenience in measuring, the bottom of each of the cartons is marked off as a six-inch ruler.

Considerable attention has been paid to the color and design of the new containers. A pale blue is used for the background which contrasts pleasingly with the pink of the braid itself. Reverse printing in white produces clean, legible copy without the need for expensive color-plates to achieve an attractive package.

The outer package is a display-shipping carton holding 72 packages of braid packed four layers deep in an assortment of widths. Here again the pale blue and white combination is used. The die-cut top, which folds under to form the backpiece, identifies the product in large legible letters and displays a sample of the braid. An all-over pattern identifies the elastic as "A Flexnit Product."

CREDIT; *Carton and display dispenser by Wm. W. Fitzhugh, Inc., New York, N. Y.*

2—*Display shipper holds 72 individual packages of braid.*

1

2

1—Striking examples of edge lighting can be seen in these display pieces designed and fabricated by Frank Maxwell, using 0.187-in. acrylic sheet. Girl's pigtail was "braided" after that portion of the plastic had been softened by heating. **2**—*These amusing acrylic display fixtures for Elizabeth Arden products have etched decorations which serve to interrupt and emit the light which is transmitted through the crystal-clear plastic.*

Designing with acrylics . . . some considerations

*by D. A. Rothrock**

Transparent packaging for more attractive display of merchandise, with resulting increased sales, is firmly established. Flexible plastic foils and rigid acetate sheets have been used in various types of transparent enclosures for a number of years, and their value is proved by their continuing popularity. A later trend in transparent packaging, interrupted by the war, is now re-appearing in the form of the special or deluxe rigid plastic package. In this development the crystal-clear acrylics, of bomber-nose fame, have been found especially valuable.

* The Rohm & Haas Co., Philadelphia.

Packagers are getting re-acquainted with the unusual properties of acrylic plastics. One of the first of the plastics to go all-out for war, acrylic is also one of the first to return, and it is now in comparatively abundant supply. The crystal clarity and remarkable lighting qualities of acrylic make it an exceptional material for the package or display in which distinction justifies a higher cost.

Re-use or dual-purpose containers of many types, novel package enclosures to produce special effects and luxury containers to encase and display elegant merchandise appropriately are typical examples of effective acrylic packaging. In general, acrylic plastics are suitable in any application where beauty and good taste, combined with originality or uniqueness, are valued at some extra cost.

The particular style of design for an acrylic container is determined by the creative genius of the designer, but certain general principles have been established through study and experience, and these will be found helpful in the design of any acrylic package.

A first consideration is the choice of method of producing the part. Two methods, molding or fabricating, are available.

In molding, acrylic molding powder is the raw material. The pressure and heat of compression or injection molding presses force the powder into the mold and convert it into the sparkling, crystal-like finished part.

In fabricating, acrylic sheet is the raw material instead of molding powder. Many attractive containers are formed from the flat sheet without any heat-forming, using only machining and cementing or riveting to

complete the assembly. In other cases, the piece is made by shaping the heat-softened sheet as desired, using a mold if necessary. Joining of parts is accomplished by cementing or riveting. Acrylic rivets have been developed recently which are both decorative and strong and in many applications such rivets may be made an integral part of the design of the container.

Molding, especially injection molding, is the preferred method of forming containers when large-volume production is required. Injection presses now in use can produce moldings of small to moderate size and weight (up to 16 oz.) very rapidly. Larger containers are molded less readily, but improvements in molding technique are constantly appearing and the practical limits for injection-molded articles are widening accordingly. Metal inserts, such as hinge or fastener parts, may often be placed in an injection-molded container during the molding process, thus eliminating the additional fabricating steps which would otherwise be required.

When conditions of design or limitations of quantity make the use of molding processes impractical, sheet-fabricating methods may be used for forming containers. With this type of manufacture there are practically no limits as to size of container and no significant restrictions in the matter of design. The production rate of sheet fabricating, however, is slower than molding and costs are generally higher due to the time-consuming hand operations which are necessary. Nevertheless, in this field, as with molding, improvements in technique are appearing and the field of practical application for sheet fabrication is growing.

Some styles of sheet-fabricated containers may be mass-produced to a degree by means of "gang-forming," in which a series of small containers is formed by blowing the acrylic sheet into a number of molds, thus forming several units simultaneously. After the parts are formed, they are cut apart and finished. Containers of this type, shaped to fit the item they are to enclose, are popular and practical.

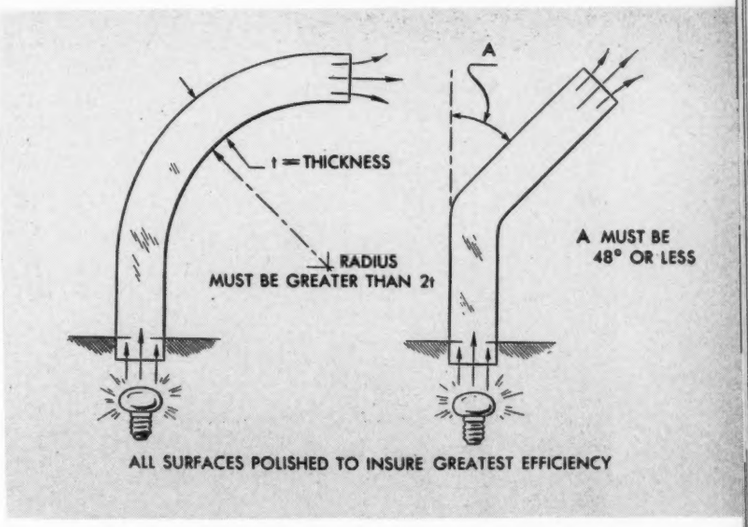
Acrylic is also an excellent material for display fixtures. Here, because of the size and variety of the items, fabrication from sheets and rods rather than production from molding powder is used almost exclusively. The opportunity for creative design is even greater in the display fixture field than in the preparation of containers. Hat racks, tie display racks, perfume displays and jewelry exhibits are possibilities picked from a list of hundreds of equally appropriate suggestions. Acrylic domes similar to those used on warplanes for navigators' observations are popular as covers for small items that are readily damaged or stolen if left on display unprotected.

In many display-fixture applications, the light-piping quality of acrylic is used to advantage. In others, edge-lighting is featured in the design. Light piped through acrylic from a concealed light source can be used to spotlight a display in a most effective manner. For example, a "pointing finger" of acrylic directing attention to a special display has its attention-getting effect increased by a beam of light "piped" through the hand and out the pointing finger to the display.

Edge-lighting uses the same light-transmitting qualities of the plastic for different effects. In this case light is led into a piece of acrylic from a concealed source and is then allowed to escape at desired spots by breaking the surface of the plastic—by sanding, engraving or other means. Edge-lighting is especially effective in

3—Acrylic can pipe light around curves and angles, but the limiting angle is 48 deg., and limiting inside radius of curvature is twice the thickness of the section.

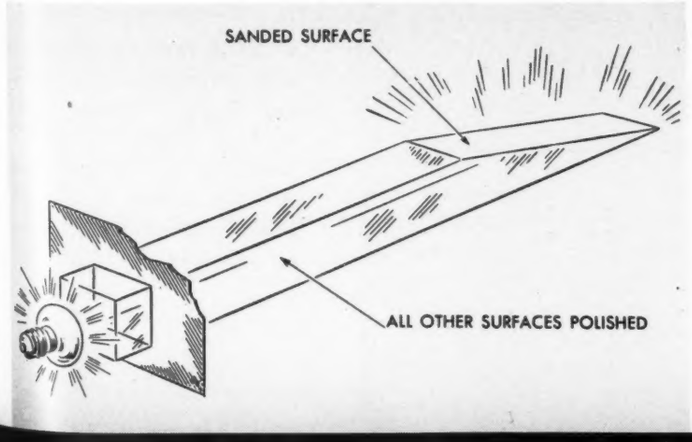
3



5—To illuminate an area, taper and sand the part; tapered area will then interrupt successive layers of light and hence it will be better lighted than the flat section.

4—It is easy to control escape of light at various points in the piece simply by breaking smooth reflecting surface sanding, sandblasting, carving or by means of engraving.

5



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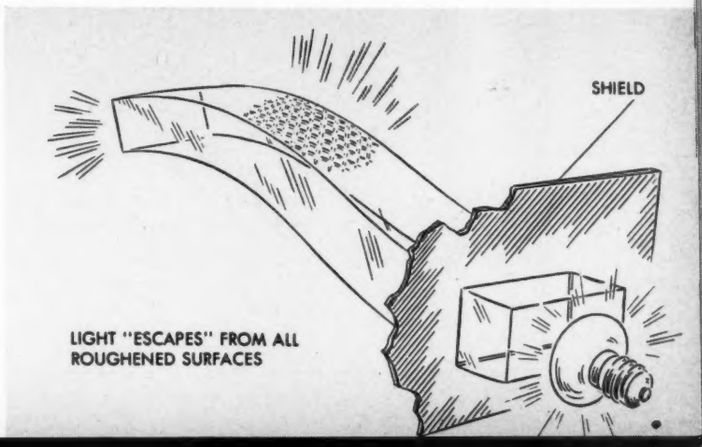


6

6—Edge lighting of the acrylic display to illuminate lettering make a distinguished fixture for this shaving brush.

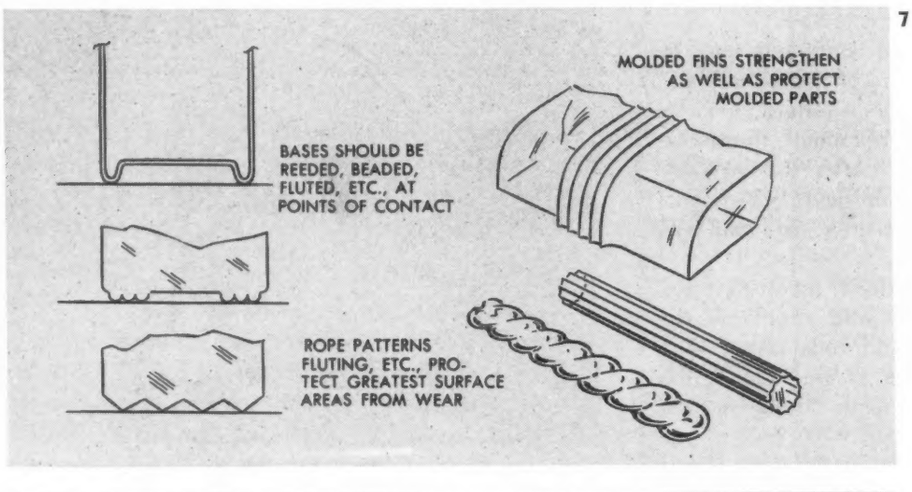
signs made from heavy sheet acrylic, the lettering of the sign being engraved on the back of the sheet or outlined by sanded areas.

With both light-piping and edge-lighting, many variations are possible. Changing effects are possible by varying the color of the incident light, or by using additional light sources, each of a different color. A simple but very effective means of producing color is found in the practice of dyeing the edge of the plastic nearest the light source; such an edge, colored by an application of dip dye, leaves the sheet transparent and colorless by external light but produces a magical color in the design when the concealed edge-light is turned on.

Impressive three-dimensional effects are obtained when two or more sheets, each bearing an element of the full design, are bound together face-to-face and edge-lighted. If the separate sheets carry individual color components of the design and are edge-dyed accordingly, the completed assembly is a full-color, three-dimensional unit which is eye-arresting and attractive.

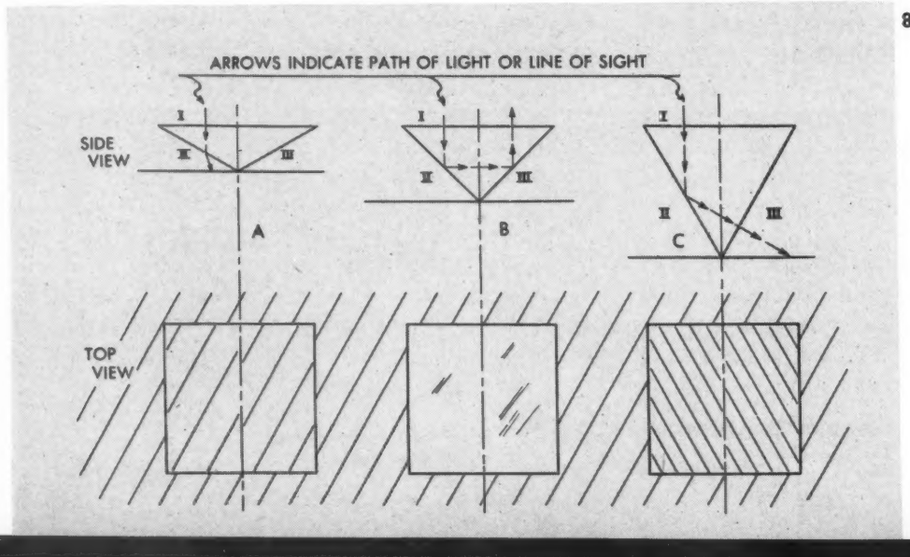
In the design of acrylic containers or display fixtures no special technical knowledge is required other than an understanding of the working characteristics of the material. But in order to achieve the most effective results, careful attention to the practical application of certain fundamental laws of optics is important.

The maximum in sparkle and brilliancy results when the largest possible amount of incident light is reflected



7

7—Acrylic will scratch, and special design treatment should therefore be given to surfaces such as bases of containers. Breaking surfaces into a number of polished facets will take full advantage of the gem-like sparkle.



8

8—Three optical possibilities with acrylic prisms of varying angles. Viewed from the top, designs B and C will give more glitter than A. The pattern below the prism apex may be distorted or obscured, as indicated.

to the observer. To obtain this effect the front surface is left flat but the back surface is faceted at an angle, of approximately 45 degs. This gives the total reflection required for greatest return of light. Design for brilliancy—"brillianteering" to the plastics designer—therefore, means including as many of these 45-deg. angles in the design as the chosen style will permit. This principle holds whether the container or display fixture is fabricated from sheet material or molded.

Another consideration is the matter of surface marring of the base portion of a container. A large article, such as a candy box or a large jewel case, should be designed with some sort of small-area bearing points in the base to prevent the scratching which results when the base is one flat surface. In molded articles this is readily accomplished by providing small "feet" at the corners of the bottom of the container. In fabricated parts, similar "feet" may be produced as an integral part of the box during the forming or blowing operation. An alternative method consists of extending the side members of a container slightly below the bottom section to enable them to serve as supports. It is often desirable to sand the supporting portions of the container to give a frosted effect which is unaffected by any further scuffing or scratching.

Numerous other methods will occur to the designer, such as embossing a pattern on the base, covering the base with flock or cementing acrylic rods to the base to serve as supports. In some applications opaque plastic may be desired as the base material; in this case, of course, the precautions against surface marring are less important.

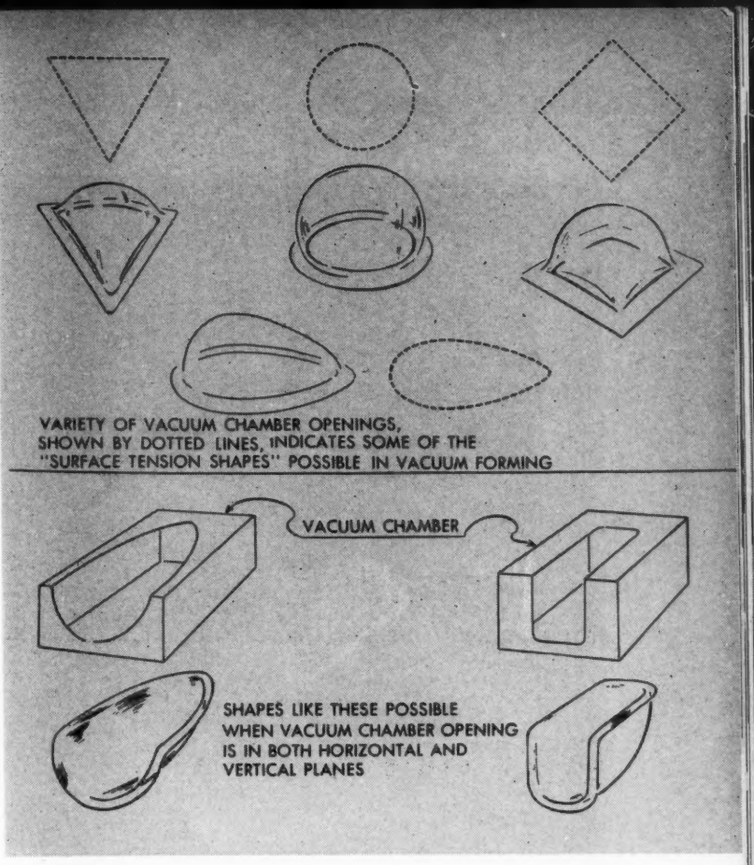
Chest-type containers are made more massive and elegant in appearance if fairly heavy material is used in the lid; at the same time, this type of design permits greater use of "brillianteering" with its accompanying increase in crystal-like sparkle.

Either plastic or metal fittings are appropriate with acrylic containers. Stock models of such fittings—hinges or fasteners—are available, or individualistic styles designed to fit the particular case may be created.

When the corners of the base of the container are cut off to 45-deg. angles, or formed in continuous curves, more reflections with resulting greater brilliance are produced in the edges than when sharp right angles are used. In addition, in the case of the curved design the container is more readily cleaned and hence is a more serviceable item. Such designs are very easily produced with acrylics.

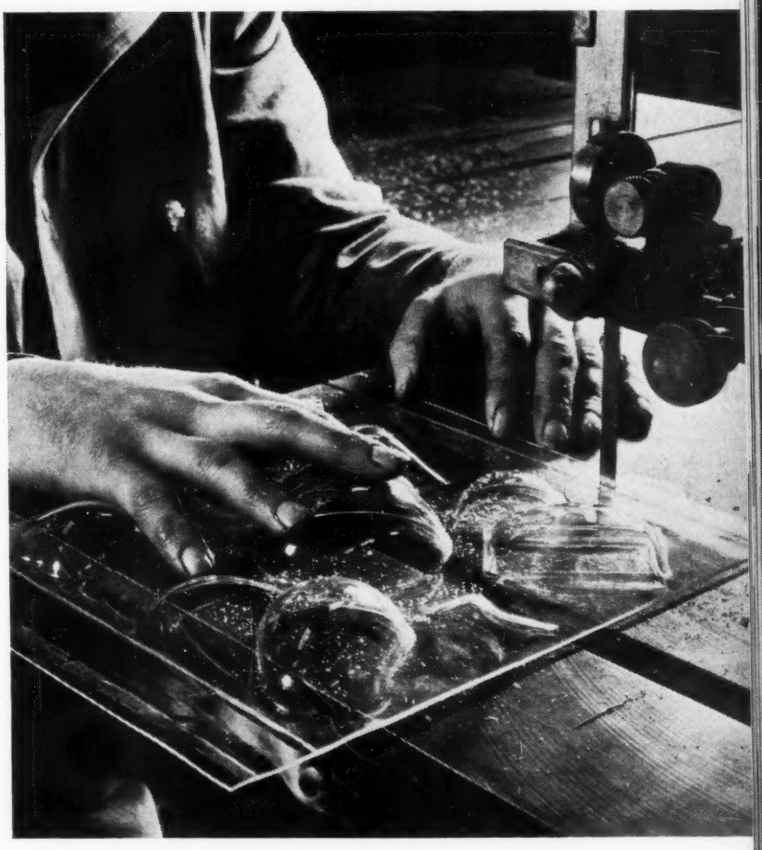
The field of use for acrylic in packaging and displays is large, but it is not universal. For large, bulky items and wherever lowest-cost packaging is important, the plastic foils and acetate sheets are unchallenged. The acrylic package is a quality product, designed for selected applications where the beauty and special properties of the material at somewhat higher cost may be used advantageously. In this field, the usefulness of acrylic is limited only by the creative ability of the designer.

9


VARIETY OF VACUUM CHAMBER OPENINGS, SHOWN BY DOTTED LINES, INDICATES SOME OF THE "SURFACE TENSION SHAPES" POSSIBLE IN VACUUM FORMING
VACUUM CHAMBER
SHAPES LIKE THESE POSSIBLE WHEN VACUUM CHAMBER OPENING IS IN BOTH HORIZONTAL AND VERTICAL PLANES

9—Shapes and forming molds possible in vacuum forming.

10



10—Small containers may be "gang-formed" by blowing the sheet acrylic into a number of molds simultaneously. The parts are then sawed apart as shown, and finished.

Visible cereals

A new package which is the result of considerable research among both consumers and dealers and which represents an effort to meet their likes in cereal packaging has recently been adopted by the Poph-Itt Cereal Co., Minneapolis, for both Whiffs O-Whole Wheat and Whiffs O-Whole Rice.

The flavor and crispness of the puffed cereals is protected in a hermetically-sealed, moistureproof cellophane bag that allows the consumer to see the product.

The bag, in turn, is placed inside a brilliantly printed folding carton with a large die-cut window to permit full visibility of the appetizing contents. Its size and shape is convenient for both the pantry shelf and for handling in the retail outlet.

Along the one side of the carton are line drawings which show the consumer how the bag may be reclosed to protect the cereals for future use.

CREDITS: *Carton, Hummel & Downing Co., Milwaukee, Wis. Layout and color design, Broughton Printing Co., Minneapolis, Minn. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.*

DESIGN

Plastic dispenser top

Harriet Hubbard Ayer has introduced a new plastic dispenser for her talcum powder can that has a sifter top which can be opened or closed without undue strain and which, in addition, cannot slide open when it should stay closed.

The dispenser is composed of two parts—the metal box top and a plastic cover. A specially-shaped hole is stamped in the metal cover to permit entry of the integral stud and shoulders of the plastic cover. A spring tension, push-on type speed-nut is then zipped on the $^1/_4$-in. diameter stud of the plastic cover. This speed-nut provides the right pressure to make opening easy.

The cover can be rotated to the right or to the left for alignment of holes only a limited number of degrees, due to the shoulder which strikes against the side of the cut-out of the metal top. A paper gasket is inserted between the plastic cover and the metal top to insure against any leaking of the contents.

CREDIT: *Manufactured by F. N. Burt Co., Buffalo, N. Y.*

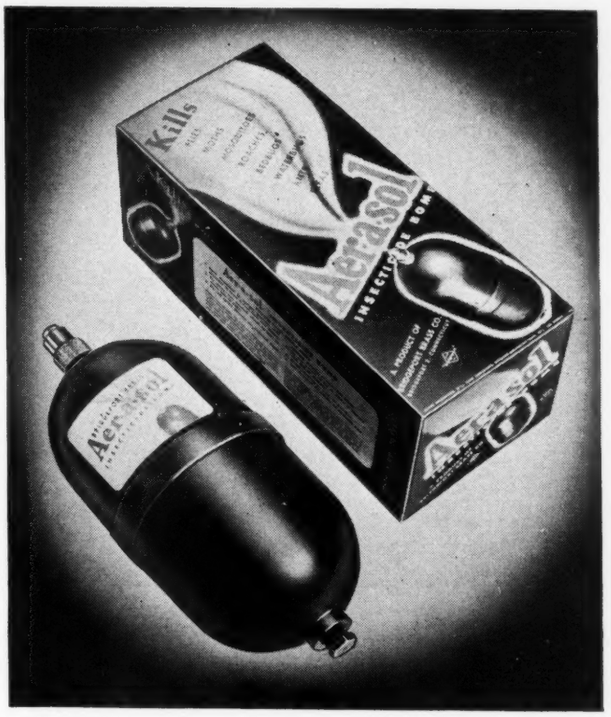
"Civvies" for bug bombs

Design improvements plus an attractive package convert the by now well-known bug bomb of Army and Navy fame into a pest destroyer for civilian use.

The Bridgeport Brass Co. of Bridgeport, Conn., introduces its Aer-A-Sol bomb with a valve improvement which makes it safe and easy to operate. A simple turn of the nozzle to the left releases the insecticide; a turn to the right stops the flow. Should the nozzle accidentally be removed, the valve will remain closed and there will be no loss of spray.

Each bomb is packaged individually. The box is blue with red and white lettering and is designed for maximum eye-appeal in displays and excellent shelf or counter visibility.

The insecticide is made up of 3% DDT and 2% pyrethrum suspended in liquefied Freon gas, a non-toxic, non-flammable agent which acts as the propelling force. Although the initial expense of the bomb is fairly high, it is claimed that the company is undertaking to refill the containers after the original content is used.



HISTORIES

Transparent book covers

Grosset & Dunlap, New York publishers, are packaging a deluxe edition of popularly-priced children's books in an acetate slipcase for which they claim some very special plus features.

From the book seller's point of view, the high gloss lent by the acetate enhances the appearance of the book, particularly for window and table displays. In addition, it is very durable and easy to keep clean. Since the title and illustrator are printed on the slipcase itself instead of the book, the full-color illustration is reproduced on the book binding exactly as the artist conceived it without detracting from its interest by extraneous printing.

To the book buyer, the advantage of having a beautiful book which can be kept clean, especially a child's book, is only too obvious.

Five titles have been published in this edition and the enthusiasm of both the trade and public makes ten more titles a certainty for the coming year.

CREDITS: *Acetate, Celanese Plastics Corp., New York. Fabricated by Miro Container Co., Inc., Brooklyn, N. Y.*

1—Nobody has any doubt about the purity of beverages bottled right before his eyes in "display window" plants such as this one in Austin, Tex. Tremendous merchandising impetus is thus obtained at very little added expense. The bottling industry in particular has been a leader in this type of packaging display.

Packaging display . . . a plus in public relations

*by D. B. Stone**

There is one form of advertising—or perhaps I should say merchandising—that is so basic and far-reaching in its implications that all packaging industries might well give it a lot more serious consideration.

I refer to the policy, pioneered by the carbonated beverage industry, of "see us make it." Before the war, this trend was designed and built to let the public see how soft drinks are produced and bottled. And while only an estimated 10% of the approximately 7,000 U. S. bottlers have availed themselves of this selling technique to date, the effect on the consuming public has been impressive. Plans are now under way for scores of new "show-window" plants to be constructed as soon as possible.

It hasn't been more than a generation ago that "soda pop" was a very uncertain beverage in the minds of a considerable segment of our population. And with some reason. Too many bottlers concocted drinks of doubtful quality, the actual bottling being done, all too frequently, in unsanitary surroundings.

With the advent of fast, efficient machinery, far-sighted bottlers began to put the bottling plant in a show window where any passerby could take a good look. Sales pyramided overnight—sparked, of course, by powerful advertising. Carbonated beverages took the place of "pop" and today the product of any reputable bottler anywhere in the country is safe and uniformly high in the quality of its ingredients. It would be too much to say that this astounding growth of the industry has been due entirely to the display-window technique, but no one can deny that taking the mystery out of bottling has influenced the breakdown of prejudice.

* Assistant Sales Manager, Crown Cork & Seal Co., Baltimore, Md.

Packaging firms in many lines, having spotless packaging departments and fascinating machinery, are missing a good public relations bet if they keep this asset concealed behind closed doors, says the author of this article. Many food packaging plants could well emulate the beverage industry, which in many instances has simply put the packaging department behind plate glass and invited passers-by to stop and watch. There is less agitation for Government controls when operations are thus brought into the open.

2

2—Bottling room of the Vess Beverage Co., Columbus, O., is thus presented behind big plate glass windows with convenient walk for "sidewalk superintendents." Glass wall replaces one of brick.

A classic example of winning public approval by maintaining "open house" is the famous Hershey Chocolate Co., of Hershey, Pa. Aside from his quiet fame as a multi-millionaire philanthropist, the late Milton Snavely Hershey achieved phenomenal distribution for his candy bars, chocolate syrup and other products without advertising. He was one of those exceptions that prove the rule. Yet he did place great emphasis on the idea of come-to-Hershey-and-see-us-make-it.

Automobile tourists from every state in the Union have made the Hershey plant a mecca. The zoo was an added attraction, as was the village and hotel, but the most unforgettable memory was the plant itself with its fascinating machinery and the all-pervading odor of delicious chocolate. And any lingering doubt about the purity and quality of Hershey products was effectively dispelled on that sight-seeing trip through the plant.

Inviting the public to "see us make it" and package it is the manufacturer's opportunity to show the public why his food products or beverages are superior to their home-made equivalents. Because of tradition and childhood memories, this often is a touchy subject, but such a demonstration is advertising without exaggeration and it is always impressive.

Actual methods of processing can be compared. By and large, bottling companies use purer water than is produced by natural springs. Dairies sell safer milk than is produced on the average farm. Bakeries make better bread than the home product (yes, they do!). Instead of a pinch of this and a cup of that—the kitchen standard—modern plants employ laboratory methods of control. Moreover, sanitation and cleanli-

3—Display-window packaging lends itself particularly well to striking modern architectural design such as is used in this plant of the Portland (Ore.) Bottling Co., located on a corner which is utilized for display.

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4—*Old fashioned ideas about "slaughter houses" are dispelled by scenes like this in the bacon slicing and packaging department of Swift & Co., Chicago. Sightseeing tours are encouraged; the visitors are impressed by the uniforms and the general cleanliness.*

ness have been carried to the point where they are almost a fetish. It all adds up to a powerful advertising differential; the manufacturer has something convincing to show the public.

There is a great amount of fascination for the average human being in the operation of any intricate machinery, and the interest value of packaging machinery has been widely demonstrated. Wherever they are conducted, show-window bottling operations attract large crowds. Exhibits of packaging machinery in operation at the New York World's Fair were always traffic-stoppers. Years ago the large tobacco companies discovered that there was no better publicity stunt than to install and operate a cigarette-making and -packaging machine at a prominent location in a large city; one such installation in Times Square, New York, blocked traffic for months.

Of course, it goes without saying that in order to dramatize the packaging operation, the proper staging must be provided. Here the bottler has many advantages by the very nature of his business and it is probably one reason why the display-window technique has been most widely adopted in this industry—although with present-day standards there is no reason why it should not be extended to many other packaging industries.

For the bottler, a white tile facade, plate glass windows with stainless steel trim and well-kept landscaping are not doubtful luxuries but practical plant assets. Inside the show-window, freshly painted walls, ceiling and equipment, spotless tile flooring and highly polished machinery are also indispensable properties. In other words, it is the way a plant should be to turn out the best work. It cannot fail to impress the visitor favorably. The curtain of mystery has been lifted and he carries away a vivid impression

(*Page 120*)

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5—*Bottling plant of Joseph E. Seagram & Sons, Louisville, has a special gallery for visitors. Cleanliness and efficiency of employees are encouraged by this practice.*

of wholesomeness, efficiency in processing and scrupulous attention to sanitation.

A growing number of bottlers and dairies are also exploiting the clubroom idea. Ladies clubs, civic groups, church groups and others can make arrangements to use this hospitality room free of charge. The management routes the party past the bottling room and perhaps a refreshing drink is served free. One Baltimore dairy sends a special bus for the ladies, takes them on a tour through the plant, gives them a short talk in the lecture room and then distributes a light lunch or snack. These trips are organized to cover a cross-section of the entire city.

Sightseers in Chicago's famous stockyards come away with lasting memories of the efficiency and cleanliness of the big meat packers. Swift & Co.'s tour of inspection, in pre-war days, was a far cry from the old-fashioned slaughter house or butchering on the farm. Despite the gruesome scenes enacted, the visitor is impressed by the humane handling of cattle, hogs and sheep. Before he leaves he is taken through the storage rooms where fragrant hams are being cured. He is made to realize that there is a difference in meats. He becomes brand-conscious.

Obviously in the large plant it isn't possible to make a show-window of the production lines for passersby. A trip through the factory is the only possible solution to the problem. Swift has found that such tours must be timed to the minute and manned by competent guides thoroughly trained to tell the story in a popular, interesting way and well enough informed to answer questions intelligently. Such a program is expensive and must not be allowed to lapse from the original high standard if an adequate return from the investment is to be realized.

Another very important effect of the "see us make it" program is that it tends to nullify the idea that Government inspection is necessary for quality control. Somehow or other, the impression prevails that without policing by Government officials, manufacturers would unload, short cut, substitute or otherwise take advantage of the buying public. Actually, the wide-awake producer is constantly on the alert to improve his methods and products ahead of Government regulations. Usually, standards are upped by the Government only after a manufacturer has done the research work and proved the practicability of the improvement. As a matter of fact, competition is the real spur to progress. And the show-window plant into which the public is cordially invited dispels any fear about the need of Government policing. There is scarcely a food or beverage manufacturer, today, who cannot take advantage of this idea.

But aside from its effect on the public, the show-window policy has a powerful reflex action on owner, manager and employees. Do you remember when you telephoned friend wife that you were bringing a good customer home to dinner? What do you suppose happened when you did that?

Well, to put it briefly, the entire family was put on its respective toes. Floors were scrubbed, swept and polished. The best linens and tableware were brought out of hiding. Special food was prepared in the most appetizing manner. Everything was tidied up, including the kids. After the first shock, the entire household began to enjoy itself. When you and your guest arrived you hardly recognized your own home but you involuntarily heaved a sigh of relief and noticeably expanded. The family, sensing your approval, entered into the same. The guest (*Continued on page 172*)

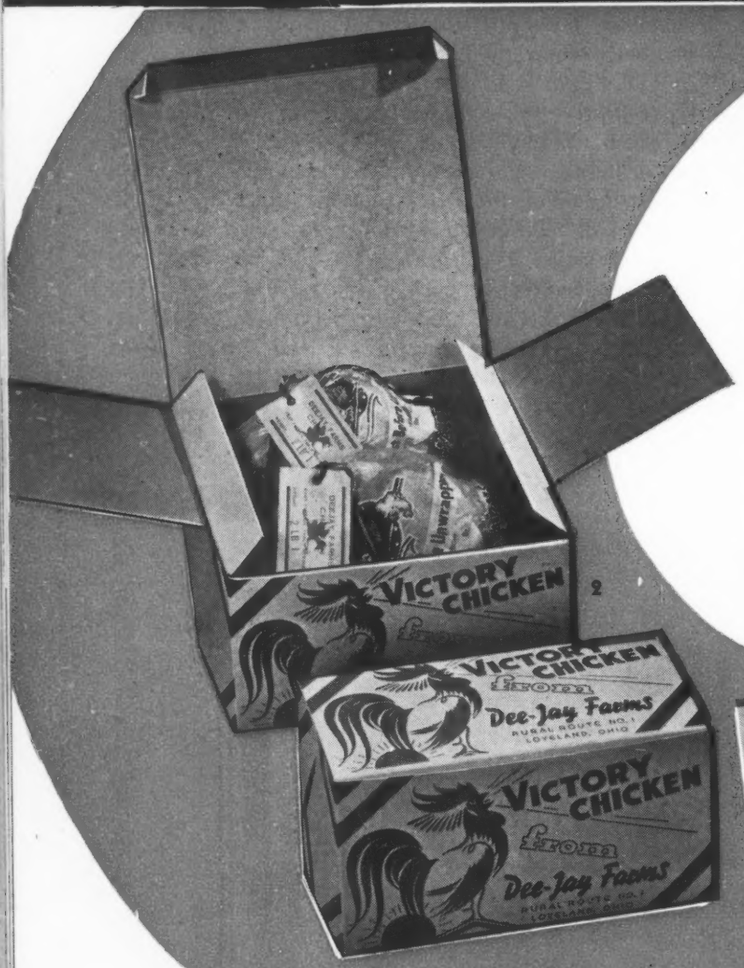
6—The 7-Up Bottling Co., Nashville, Tenn., conducts its visitors to the plant along a railing past the bottling machine. The cleanliness of the line is stressed and all the attendants are spotlessly uniformed.

6 (*Page 121*)

Well-dressed birds . . . for a broader poultry market

1

1—Deejay frozen poultry—chickens, ducks, turkeys, pheasants—is cellophane wrapped and tied with red, white and blue ribbon. A colorful label is affixed inside the cellophane. Weight and directions for preparation are carried on the tag. **2**—*Frozen birds are placed in these carry-home boxes at the Deejay retail shop.* **3**—*The first step is removal of feathers.*



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In Cincinnati, nearly everybody knows the attractively packaged frozen turkey, chickens, ducks, and pheasants that come from Deejay Farms at Loveland, Ohio.

They crowd into a tiny retail shop operated by the farms at the corner of Main and Fourth Sts. to take home these quality poultry items wrapped in cellophane, labeled, tied with red, white and blue ribbon, tagged according to weight and placed in colorful boxes appropriately identified with product and trade name.

Packaging has become an integral part of the fast-growing frozen poultry industry, but in most cases the packaging has been given greatest consideration for its protection value. Only a few operators in this field have given specialized attention so far from the standpoint of eye appeal.

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One of these is David J. Joseph, a leading scrap iron operator in the Middle West, who went into farming as a hobby, but is now so deep into a sideline of producing frozen poultry that, he says, "I've got to make a go of it." During the past holiday season Deejay Farms—named for its owner's first initials, "D. J."—sold something like 25,000 frozen turkeys and 100,000 frozen chickens, plus considerable quantities of frozen ducks, and pheasants—all packaged and boxed.

Mr. Joseph bought his large farm at Loveland in 1941. He started raising turkeys, he says with a twinkle in his eye, because he liked "to raid the ice-box for cold turkey sandwiches." At first he raised only enough turkeys and poultry for his own use and to send a few holiday birds to neighbors and friends. But when the war food shortage loomed, he felt that there would be a definite need for greater poultry production in local areas. The quantities he raised made quick-freezing a requirement for preservation. The farm had a large farrowing house, originally constructed for hog raising. This with several additions, has been turned into quarters for killing, packaging, freezing and shipping operations.

From the beginning, the aim has been to supply the market with high quality poultry. In so far as possible Deejay Farms prefer to raise the birds they prepare for freezing. They are anxious to control the outlets in which the poultry is sold and for this reason opened the tiny downtown retail store. At the present time they are working to open up specialty markets for their packaged lines and are considering the possibility of mail-order business for customers who want a specialty product, similarly to the way some of the West Coast Fruit growers ship fruits. They are also aiming at year-round markets for frozen turkey and all kinds of frozen poultry and game, which have tended to be highly seasonal.

For this reason, Mr. Joseph is very package conscious. He believes first in a superior product and adds skim milk and cottage cheese to the diets of his poultry to get that quality. The products must be fresh and he is anxious to adapt any packaging development that will help to prolong that freshness. He also believes that a specialty product must be attractively packaged with plenty of eye appeal to win new customers and retain old ones.

That is why decorative package appointments have been used beyond the actual requirements of protective packaging at Deejay Farms.

The poultry is prepared in this manner: It goes first to the killing room where after being hung, it is dipped in warm water and the feathers are removed by semi-automatic methods. The de-feathered birds are carefully table dressed and passed down the line where one girl wraps the giblets in vegetable parchment while another stuffs these packaged giblets into the bird. After chilling, the poultry is transferred on hand

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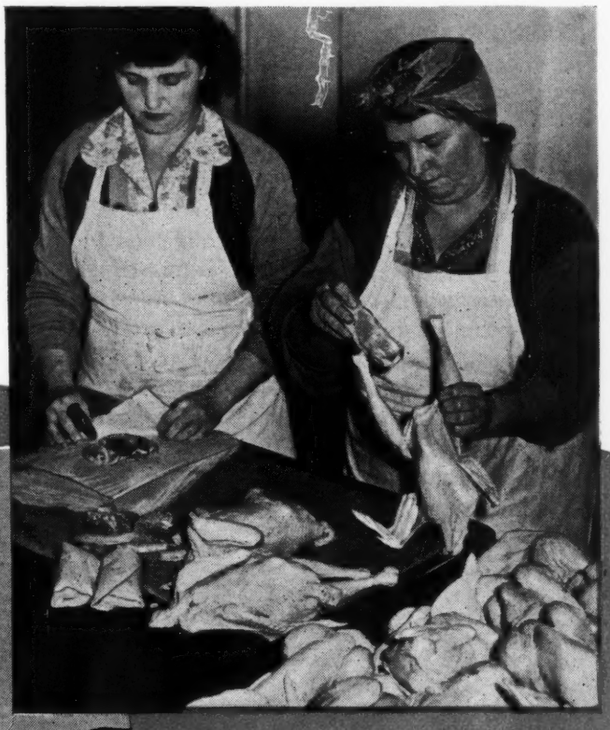

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4—De-feathered birds are carefully table dressed. **5**—*At the next station one operator wraps giblets in vegetable parchment, while another places giblets in birds.*

trucks to a wrapping table, where girl operators affix a Deejay label on the breast of each bird and wrap it in 300 moistureproof cellophane so that the colored label shows through. The cellophane is simply folded, not heat-sealed, but every effort is made to wrap as closely to the bird as possible to extract all excess air around the chicken or turkey which might cause excess moisture condensation on the inside of the cellophane. After the birds are cellophane wrapped they are passed on to another girl who ties the colored ribbon around them. She, in turn, passes the packaged bird to another operator who weighs it and places on the string a tag which has the weight stamped on it. These tags, all rubber stamped with the various weights, are kept in a rack beside her, so that she merely selects from this case the tag stamped with the proper weight. The tags are printed with the identification Deejay Farms chicken, turkey or duck, as the case may be, accompanied by a picture of a turkey, chicken or duck, and the words "Fast Frozen, Table Dressed." On the reverse side are instructions for use: "This poultry is frozen under pressed freezing process (not cold storage). Should contents not be for immediate use, leave in wrapper and place in refrigerator. Should contents be for immediate use, leave in wrapper in normal temperature until thoroughly thawed out."

After the poultry is labeled, wrapped, tied and tagged, it is ready to go to the freezing room. Here it is placed without piling so that each bird is in direct contact with the cold plate for a quicker freeze.

Only perfect birds are packaged and put in the freezer. Those whose skins have been broken during the removal of feathers or which might be discolored because they have not hung quite long enough are cut up and wrapped and frozen for sale as piece chicken, for which there is a large growing market—or sold for restaurant and hotel use, where appearance in the raw is unimportant because all food is served after cooking.

The table dressing and packaging rooms are spotlessly clean, all work being done on stainless steel tables which are kept sparkling during the entire operation by constant care.

Every appointment of the packaging is done to present the product in the most appetizing manner. The labels which go on the poultry are printed in red, white and blue, with the name and the farm address arranged in an outer circle, and a tiny picture of each type of bird, turkey, chicken, duck—in the center. For the war period, the products were featured as "Victory" poultry, but plans are now under way to redesign boxes and labels without the word "Victory." These labels are visible through unprinted cellophane. The farms have made use of printed cellophane. The packers, however, say it is somewhat difficult to center the design in the hand-wrapping operation, so that for more general production, the label under the cellophane is preferred.

The consumer boxes for the chickens are supplied to Deejay Farms downtown retail store, where the poultry is placed in the boxes at the time of sale. There are folding boxes, appropriately designed to hold one or two chickens. When a customer makes a purchase, the chicken is taken out of the frozen-food holding cabinet and placed in the box, which itself is a dramatic advertisement for the farms. This method of using the box at the point of sale also has other advantages. It is claimed there are certain advantages in freezing the poultry directly in the cellophane on the freezing plates. Putting the chickens in the box at the point of sale also assures a fresh clean box when the consumer takes it out of the store and also saves a tremendous amount of cabinet storage space.

Turkeys are placed for consumer sale and for shipment in corrugated boxes nested in shredded waxed paper. The boxes have a printed design identifying the product from Deejay Farms. However, in Mr. Josephs' office there are new designs for the turkey boxes which would also include illustrations suitable for shipping in the same box not only turkeys, but chickens, pheasants, and all types of poultry specialties from the farms.

Deejay Farms are also interested in methods for dry-ice packs for mail order shipments and other packing methods to hold frozen foods (*Continued on page 170*)

6—At this station poultry is cellophane wrapped and tied with ribbon. Then it is weighed and a tag with proper weight designation is taken from rack and tied to package. Completely wrapped birds are then sent to the quick-freezing unit.

Modernized Chipman box (left) continues identity of trademark on old package (right). Details include trademarked tissue inner wrap, cellophane envelope for each pair of stockings and new counter display.

Back to nylons . . . redesigned hosiery boxes

Nylon news is bringing to the fore many new hosiery packages. Stocking manufacturers are anxious to present their new lines with eye appeal and protective packaging that will give them new sales advantages in a market that will be highly competitive once nylon yarns are unlimited.

Chipman hosiery, made by Rosedale Knitting Co., Reading, Pa., is appearing in redesigned boxes to hold three pairs of nylon, each pair separately wrapped in a cellophane envelope. The box of three is a new idea for Chipman, previously packaged in half-dozen sized boxes. The three pairs in one box are planned to encourage the sale of three pairs of stockings as a unit, although since each pair is separately packaged in its individual envelope, single pairs may be removed from the box and sold separately without danger of snagging or soiling from handling.

The interior of the box is enhanced by a trademarked tissue on which is reproduced an over-all design of the Chipman trademark. A trademarked band printed in the identifying colors holds the three envelope packages together.

The old Chipman box presented a plaid effect in turquoise green. The new box is done in light shades of brown and tan. This color selection, according to the company, harmonizes with the fixtures of hosiery departments in modern stores and suggests as well the color of hosiery.

Essentials of the "clip ticket" which says "Chipman Hosiery" were retained on the new design as an identifying symbol. A big swash letter "C" gives individuality to the background of the box design worked in with skillful shading of the brown tones. A carry-over suggestion of the former color scheme gives continuity to the redesign program by use of green for the word "Chipman" on the "clip ticket" part of the design.

A counter display has been redesigned to complement the new packages. Instead of a previously used die-cut, four-ply paperboard unit, the new display piece is a convenient easel-back metal display on which is reproduced in full color the design of the new box cover. This display is small enough to please sales forces in saving valuable counter space.

CREDITS: *Box cover and tissue, the Lassiter Press, Inc., Charlotte, N. C. Designers, Allcolor Co. and A. Kimball Co., New York. Displays, Display Ad Co., Inc., New York. Trademark transfer on stockings, Superior Trademark Mfg. Co., New York.*

Packaging Pageant

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1 Iron-Aid is a new type of ironing board cover made of a specially developed metallic foil laminated to a super-calendered material introduced by the Clarvan Corp. The colorful carton vividly demonstrates the application of the cover by means of a die-cut window in the shape of an ironing board which reveals a portion of the product itself. Package design, Clarvan-Meyer Display Co., Milwaukee, Wis. Produced by F. J. Schmidt Co., Inc., Milwaukee, Wis.

2 A printed cellophane overwrap for Julienne dehydrated potatoes has been adopted by the J. R. Simplot Dehydrating Co. of Idaho. A continuous band of lively blue at the top gives this package eye-appeal while white lettering with an outline of bright red snaps the brand and product name into prominent view. The name has been logically placed on the face and both ends for easy and immediate identification. The natural color illustration forms an interesting all-over pattern. Simple instructions and suggested uses are legibly printed in two panels on the back of the wrap. Wrap, Milprint, Inc., Milwaukee, Wis.

3 Prince Matchabelli introduced "Three of Hearts" just in time to be featured for Valentine's Day promotion. Three of his most popular scents in their familiar crown-emblazoned flacons are packaged together in a soft blue box, bowed with cerise ribbon—a truly Valentine gift box. The three of hearts is significantly featured as the decorative motif. The three little bottles in a row provide a scent to please every mood: Potpourri, spicy; Gypsy Patteran, wild-flower; Holly Berry, holiday spirit.

4 In creating the new packages for this line of T. D. L. Automotive and Household products the designer was faced with

(*Page 126*)

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several problems. Originally the line started with seven products but new ones were to be added from time to time. At the outset there was no way of determining whether a new item would be packed in tin or glass. In order to avoid elaborate art and plate work the design was planned with elasticity to be adaptable after simple type changes. In addition, all reading matter was planned to come within certain areas so that labels could be trimmed to fit glass containers as well as tin. Each product has a different color scheme and color variety has been included in the design plans so that the family group will never have the monotony of sameness. Design, E. Leonard Koppel, New York. Labels, Sun Press, Inc., New York.

5 A new line of non-breakable Vinylite (polyvinyl chloride-acetate) records to be known as Pilotone Records has just been launched by Pilot Radio of Long Island City. The albums have been designed distinctly, with a large center disk featuring the name of the selections against a black background. A multi-color panel border is made up of a montage of musical instruments. The name Pilotone appears in large yellow letters, below which are the words "Vinylite (Non-breakable) Records," to stress this important selling feature.

6 The Munising Paper Co. of Munising, Mich., as a sideline, has been selling paper impregnated with chemicals to do various jobs around the house. One of these papers is impregnated with scent and called "Sachet Petals." The sachets, cut in the shape of flowers, are packaged in opal jars with metal covers and outer packed in attractively designed cartons which carry delicate flower patterns. Caps and jars, Hazel-Atlas Glass Co., Wheeling, W. Va.

7 A colorful, new Scotch plaid package has been adopted by Minnesota Mining & Mfg. Co. to merchandise as well as identify its "Scotch" Tape. Both the small utility dispenser shown here and the large roll containers carry the new design. The change, according to company officials, was prompted by a desire to make it easier for customers to pick out "Scotch" Tape when buying. The plaid design is, of course, a natural for the product. Dispenser, J. L. Clark Mfg. Co., Rockford, Ill.

8 Special "welcome home" cartons are being shipped flat to dealers by the Pal Blade Co. to be slipped over the regular packages when the blades are bought specifically for servicemen. Front of the carton shows the trademark "Little Pal" man beating a drum. A banner in the background carries the "welcome back" message. Colors are blue, red and black, the company's standard packaging colors. Incidentally, the carefully worded front message also welcomes back the larger economical sizes which were curtailed during the war. Printing, Chopp Printing Specialties, New York City.

9 First Nighter pajamas made by the Weldon Mfg. Corp. recently appeared in the retail shops in an entirely redesigned package. The new package, lower right, retains the cellophane window but adds a protective tab on one side to prevent breaking when the package is handled by the clerk or customer. The color scheme is an attractive lemon and gray with a sprinkling of stars on the border to play up the night motif. The identifying trade mark is retained on the protective flap. Designer, Alan Berni, New York City.

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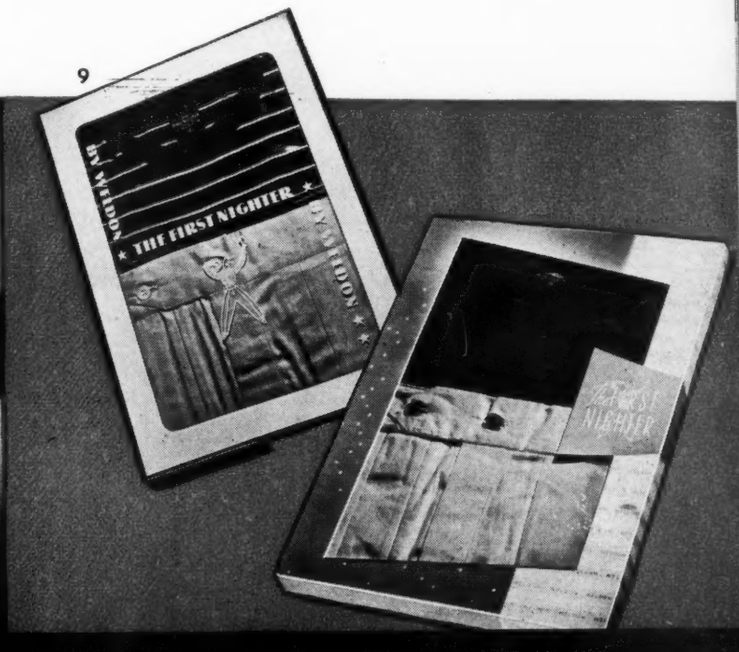

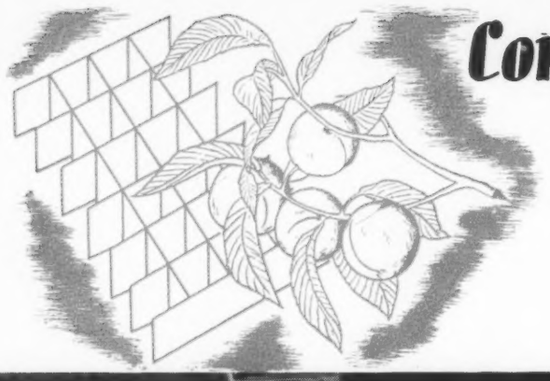

Compartments for peaches

. . . . cell-type box permits marketing of tree-ripened fruits

*by Dr. T. A. Merrill**

1

1—*The shipment and sale of tree-ripened peaches is made possible for the first time by cell-type corrugated containers, which prevent bruising and rot. In tests, sales from corrugated boxes far outstripped those from bushel baskets (rear) despite a price disadvantage of one cent a pound. The egg-type window carton at far right was not successful; mass display is preferred.*

A recently developed shipping container that "quarantines" peaches from bruises and brown rot infection on their way to market promises to solve, at least in part, the perennial problem of how to market a ripe peach without disastrous damage.

This container is a cell-type, corrugated paper box with individual spaces for 96 peaches from $2^1/_4$ to $2^1/_2$ in. in diameter, adding up to a net weight of 24 to 25 lbs.—a half bushel. It contains four layers of 24 peaches each, the layers being separated by corrugated pads.

The significance to the peach-growing industry of a container able to deliver to retail outlets a riper peach without incurring excessive damage may become increasingly apparent in the years immediately ahead.

The market for the nation's peach crop was expanded during the past four years of war by shortages and rationing of commercially canned fruits. The extent of this expansion cannot be determined or even guessed at, but the emphasis on home canning by the many Federal, state, county and community agencies undoubtedly set many a housewife who had never before stained her fingers at such a task to canning a bushel or so of peaches. And it is reasonable to suppose that an assured supply of commercially canned fruits will cause many of these homemakers to be less inclined to this task.

It follows that profitable distribution of present high peach production will depend to some degree on the peach industry's capacity to stimulate bulk or pound sales.

The problem involved has been analyzed properly by growers, packers and distributors for many years. It may be summarized briefly as follows:

Homemakers buy peaches in pound lots primarily because they want to take them home to serve in the very near future—in a cobbler or sliced for dessert or at breakfast the next morning. Consumer acceptance tests have proved conclusively that green peaches—the "hard ripe" fruit of the usual market type—encounter sales resistance, while those in the "firm ripe" stage, in which the green ground color has turned to lemon-yellow, not only find a wider acceptance but bring many customers back for repeat purchases.

On the other hand, efforts to market a ripe peach through regular commercial channels have failed because of increased spoilage. The higher retail prices which must compensate for this excessive spoilage deter the consumer quite as effectively as does greenness of the peach and, in addition, the hazards involved may deter the distributor from any type of aggressive sales campaign.

Experiments with various types of shipping contain-

Among the opportunities for packaging which remain to be realized in the produce field is that of bringing tree-ripened fruits to markets where consumers usually never have the chance to buy anything other than the less-tasty "green ripe." Protection of fully-ripe fruits from bruising and rot is the problem. The cell-type peach box represents a significant approach to a solution.

* Research Associate, Michigan State College.

ers for the purpose of reducing handling losses while delivering to the consumer a riper peach were begun in 1943 by the Horticultural Dept. of Michigan State College, with the Michigan Chain Stores Bureau and A & P Food Stores as the original cooperators. During the next two years other cooperators joined the project, which was climaxed this last season by extensive shipments, under normal commercial conditions, of the cell-type half-bushel box.

This box was introduced into the experiments during the 1944 harvest season, but the emphasis at that time was on other types of containers and only a few hundred of the cell boxes were shipped.

Approximately 3,000 of the half-bushel containers were packed last season by the cooperating Millburg and Sodus Fruit Exchanges in Michigan with "firm ripe" Berrien County peaches and sent through regular trucking channels to four A & P supermarkets in Detroit, a distance of approximately 200 miles.

These shipments continued over a period of three weeks, with 1,000 of the boxes being filled with Halehavens and the remainder with the later Elbertas. The cell-box peaches were sold in competition with those shipped in the commercially packed bushel basket, both being sold in the four experimental stores in container units and in "bulk," or by the pound.

Handling damage and general conditions of the fruit in both containers were checked when the shipments arrived at the stores. Girls were assigned especially to the task of getting these data, checking rate and volume of sale from each container and noting customer reaction or comment.

To compensate for the higher cost of the cell box and for the trouble of packing the box under experimental conditions, the fruit shipped in this container was priced 1¢ a lb. higher than that shipped in the bushel basket.

Results of these extensive experimental shipments, in regard to both damage reduction and accelerated consumer acceptance, substantiated the somewhat surprising figures obtained the previous year.

Figures obtained during the 1945 season on bruising, as checked at the four supermarkets, are as follows:

Percentage of fruit shipped in the bushel basket showing bruise, 31.28; in the cell box, 4.04; percentage of unsalable fruit in the bushel basket due to bruise, 5.37; in the cell box, none.

In an effort to compare the spread of brown rot in the

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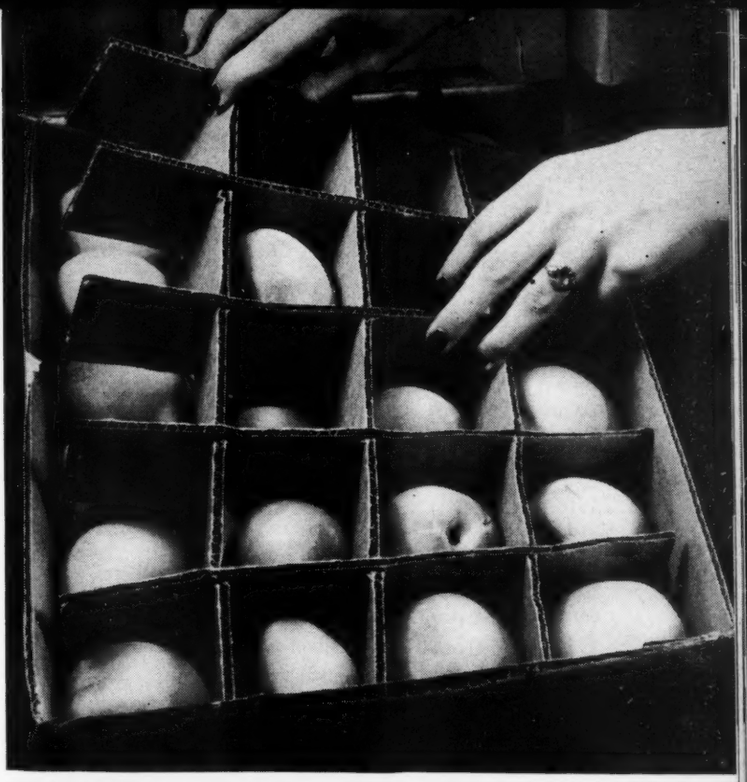

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2—*Cell-type container is easily turned into bulk-sale display by lifting out first divider and piling up peaches from other boxes. Box sides usually carry printed brand name, stress "tree-ripened" feature.* **3**—*In A & P test, trained girls checked condition of fruit on arrival in old and new style containers and noted customer reaction. In 3,000 cell-type boxes, not a single peach was unsalable on arrival at Detroit stores. At left, Dr. Merrill, author of accompanying article.* **4**—*Packing peaches in cell-type boxes at a Michigan fruit exchange. Off-size fruit go into bushel baskets for quick nearby sale.*

two containers, fruit remaining in one of the stores 24 hrs. after arrival was checked for six consecutive days with the following results:

Percentage of spoilage due to brown rot in the bushel basket, 16.2; in the cell box, 4.5.

A check of sample containers permitted to remain in a store, at normal store temperatures, for five days showed spoilage in the bushel basket from both bruising and brown rot of approximately 65%, while total spoilage in the cell box, due only to brown rot, had increased to slightly more than 15%.

Prevalence of brown rot in the 1945 Michigan crop was greater, incidentally, than in the crop of either 1944 or 1943.

It is significant that reports from the four stores indicate that not a single peach shipped in the cell boxes was found upon arrival at the stores to be unsalable as a result of bruising.

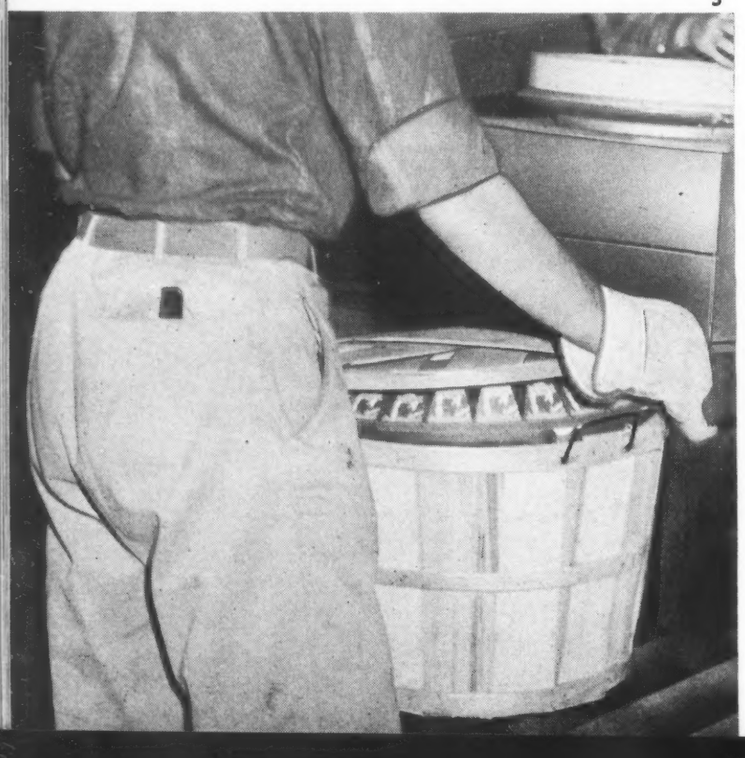
Reports from the four stores concurred in indicating a decided consumer perference for the riper fruit shipped in the cell box. Due to the fact, however, that fruit from one or the other of the containers was sometimes sold out before store closing time, a perfect comparison of the consumer-acceptance factor was not obtained. The following reports from two of the stores on consecutive-day sales indicate the trend:

Store No. 1, bulk or pound sales only (exclusive of container-unit sales) for a period of six consecutive days: from the cell-type box, 1,368 lbs.; from the bushel basket, 858 lbs.

Store No. 2, bulk or pound sales only for a period of 13 consecutive store days: from the cell-type box, 3,781 lbs.; from the bushel basket, 1,985 lbs.

It should be noted again that the price of fruit in the cell box was maintained at 1¢ a lb. higher than that in the bushel basket.

5—*Old-style way of packing "hard ripe" peaches in bushel baskets with headers. Cost is said to be about the same as volume production in the new cell-type containers.*



Customers selecting peaches from the cell box in preference to the cheaper fruit in the bushel basket cited as their reasons in the great majority of cases either the greater degree of ripeness, the absence of bruises or both.

This price differential of 1¢ a lb. was considerably greater than would seem to be necessary if the cell box were being manufactured and packed in volume. Makers of the box express the opinion that the cost of two of these half-bushel boxes could be reduced through volume production to approximately the cost of a single bushel basket and reliner. Volume packing of the cell box would require alterations in packing-house operations, but stopwatch timing of the various operations in packing both the containers indicates that the difference in work-hours involved would be negligible.

Average time required for the bushel basket packing operations—putting facing liner and pad in place, ring facing, filling and putting on, covering and fastening the basket—was 4 min. and 10 sec., with the basket being passed directly from one worker to another along the production line. The time required for a single worker to assemble, fill and seal the cell box ranged from 1 min., 50 sec. to 2 min., 15 sec.

Other problems in packing-house operations exist, however, if the cell box is to be used in volume. T. C. Stebbins, extension specialist in horticulture, who supervised the cell-box packing at both the Millburg and Sodus exchanges, phrased one problem accurately by saying, "We can't just press a button and get all $2^1/_4$- to $2^1/_2$-in. peaches"—the size required by the half-bushel, 96-cell box.

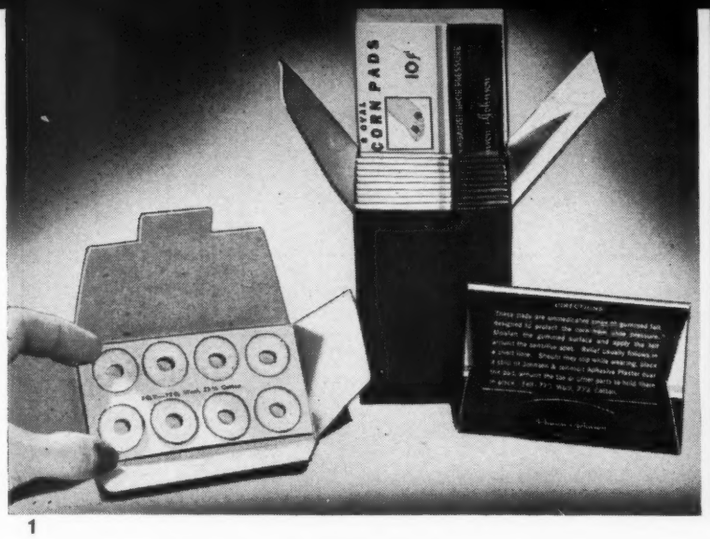
Mr. Stebbins explains that packing houses will be obliged to "size peaches at the top as well as at the bottom"—that is, grade out those larger than $2^1/_2$ in. as well as those under $2^1/_4$ in.—if the cell box is to be fully utilized.

Such a change in operation could be made practical through the use of boxes adapted to these larger and smaller peaches. To maintain the half-bushel standard weight, a cell box must contain 120 of 2- to $2^1/_4$-in. peaches, while only 80 of the large $2^1/_2$- to $2^3/_4$-in. size would be required. Box manufacturers report that development of the right size containers presents no difficulties.

In the experimental packing of the cell box this last season, only the riper peaches were selected from the packing-house belt. Since peaches of sufficient ripeness constituted only a minor fraction of the peaches on the belt, efficiency in volume use of the cell box would require that the fruit be left on the tree until it attains the desired stage of average ripeness for the new type of package.

If this type of package can be adapted for practical use in volume by packers and distributors to the end that a tree-ripened peach is delivered to the housewife, growers will have an added reason for looking to the future with confidence.

CREDITS: *Cell-type boxes by Fruit & Produce Packing, Inc., Indianapolis, and Hinde & Dauch Paper Co., Sandusky, O.*



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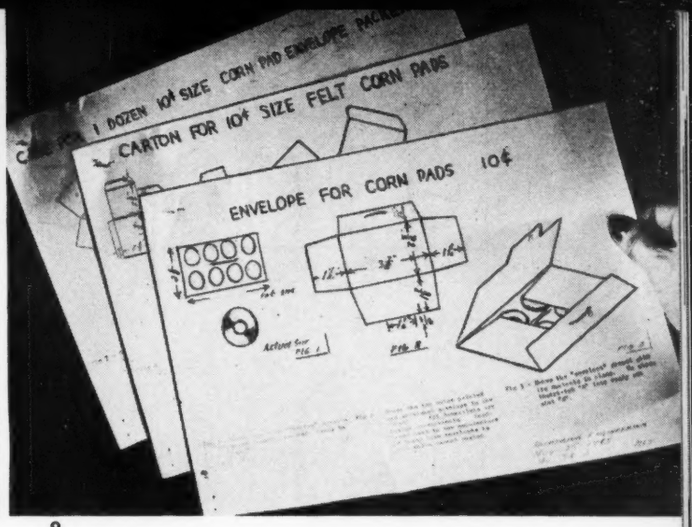


2

1—This interesting pack for corn pads is one of the 54 packages for which Johnson & Johnson have created a series of production illustrations. The method cuts training time for new employees materially, saves time and materials all along the line. **2**—*There are no bulky blueprints, but three letter-sized hectographed sheets cover the packaging of corn pads from the start of the operations right down to the final shipping case.*

Visualizing the package speeds production

*by Walter J. Byrd**

During World War II a number of airplane producers found that they could save considerable time in assembling planes by using pictorial blueprints known as "production illustrations." These perspective drawings showed each part in relation to the whole, and enabled a newcomer to assemble accurately his particular phase of the complete plane by just looking at the step-by-step illustrations. This visualization method was later widely adopted in the electrical appliance industry, in small arms manufacture and in many other fields where there was no time to train new workers to read conventional blueprints if the production schedule was to be met.

At the Johnson & Johnson plant in New Brunswick, N. J., where there are several hundred different cartons to be filled and packaged daily, the Packaging Engineering department has been utilizing the same time-saving method in improving and standardizing the production of many packages.

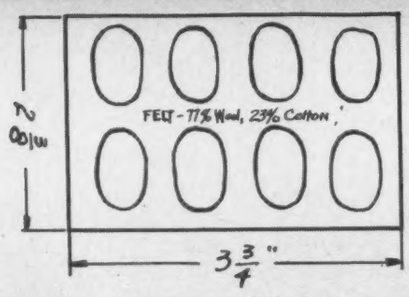
During the last six months production illustrations have been made for 54 different packages. These illustrations start with the broken-down over-all package, showing all component parts of a put-up which may include locks, flaps, labels, case printing and many other packaging details. Additional illustrations indicate the step-by-step putting together of the carton, the correct relation of the contents to be inserted into the carton, the most efficient placing of the contents in the package, the correct closure of the package and finally, the best placing of the package in its shipper.

In this way new employees are able to package our products with practically no lost movements and without any special training. In setting up the new program, it was interesting to note how many unnecessary motions could be eliminated. It has also been found that production illustrations cut down breakage due to improper packaging; they help to establish high standards of packaging rather than hit-and-miss methods. Another result was a considerable reduction in the use of packaging materials, since more efficient packaging methods led to the elimination of duplication, lost space and odd-shaped packages.

Suppliers of J & J packages have also benefited by the production illustrations. They report that the sketches have cut down the number of trial samples necessary, since they provide a clear picture of the

The best way to tell a man how to do something is to draw him a picture of it. Based on this elementary principle, a form of simple sketches known as "Production illustrations" came into wide use in aircraft and other war industries as a training aid. One packaging production man has adapted this sort of visualizing to his packaging operations, with impressive results. He tells about it in this article.

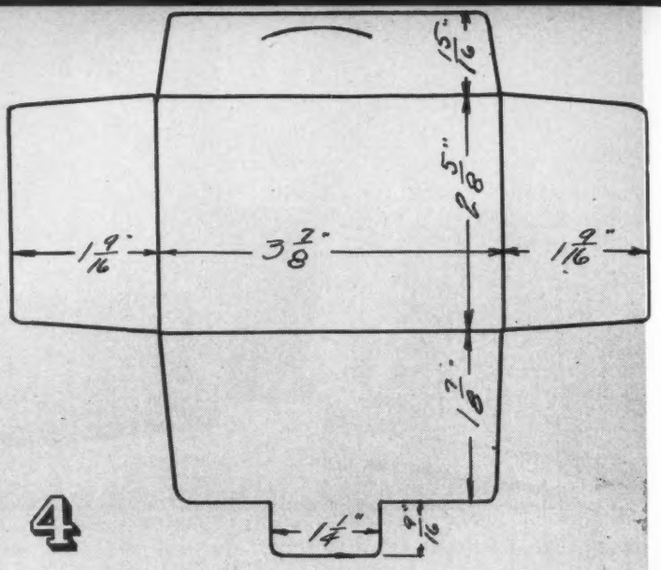
* Packaging Engineer, Johnson & Johnson, New Brunswick, N. J.



ACTUAL SIZE

3

Blue bristol board insert, punched with eight cuts, ready for insertion of pads. Adhesive side of pad is to appear on printed side of partition.



4

Two-color printed and varnished envelope in the flat. All dimensions are inside measurements. Envelope board is specified as .016 white patent coated.

container and what it is expected to do. Since production illustrations carry accurate dimensions in all cases, they are valuable to new suppliers when bids are being sought. These drawings are also valuable for interdepartmental re-orders; they eliminate any possibility of error.

J & J have also found that production illustrations are useful to their shipping packers and materials handlers. The loaders and packers can see at a glance just how each carton should be packed in relation to the other, rather than go through a long trial-and-error process to determine the best method of packing for shipment.

The sketches reproduced herewith show a typical set of production illustrations as used in the packaging of one Johnson & Johnson item—a ten-cent package of corn pads.

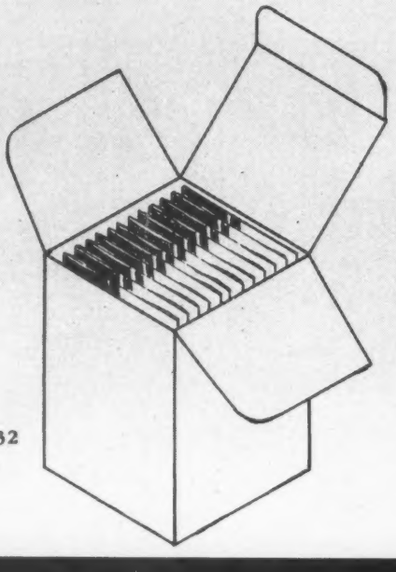
Fig. 3 shows the first component part of the put-up. It gives the operator the correct number of pieces to be inserted into this partition.

Fig. 4 shows the over-all picture of the envelope, indicating inside measurements, material used in its make-up and the printing necessary for its completion. A finished sample attached to the drawings gives the new operator an idea as to how the envelope looks and what it is like.

Fig. 5 shows the envelope formed and its contents in place. From this sketch the operator can readily ascertain the correct position of the contents and which panels of the folder are to be closed first.

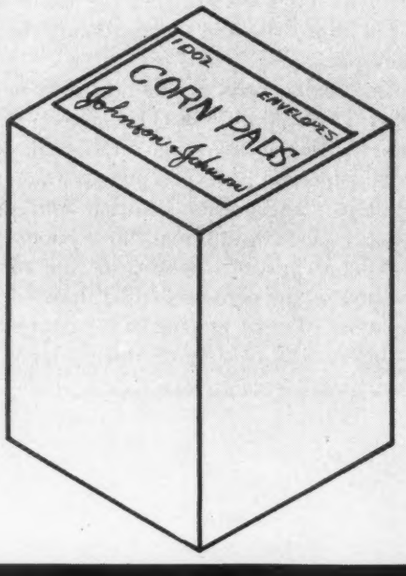
The 10-cent size corn pad envelope packers formed, with 12 filled envelopes in place.

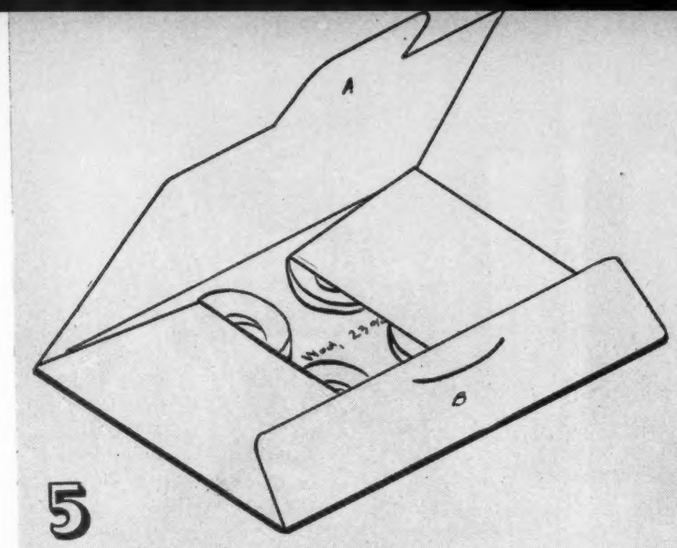
7



Packer filled and closed. Printed label is to be applied to top panel of packer as illustrated.

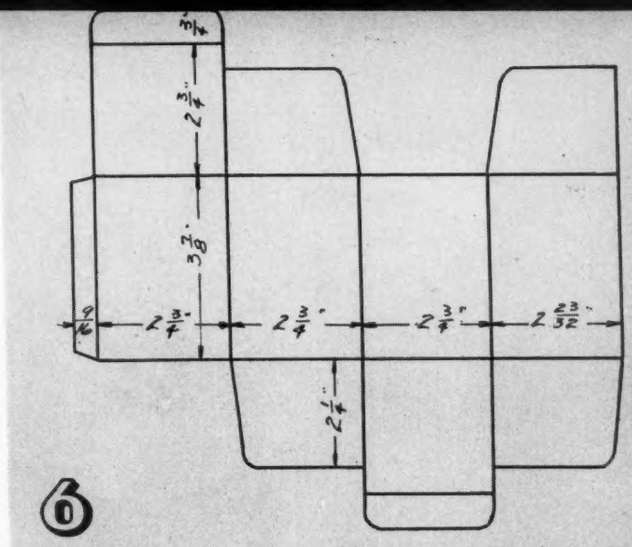
8





5

Envelope formed with contents in place. To close, insert tab "A" into ready-cut slot "B."



6

Shows .016 blue board folding packer in the flat. All dimensions are inside measurements.

Fig. 6 shows the "dozen" packer in the flat, together with all inside measurements. A copy of this sketch forwarded to the carton supplier would be of great help to him in preparing the carton dies, as the sketch gives him the dimensions and "bends" of the flaps. The length of the flaps is an important factor to both the supplier and customer, and often thousands of cartons must be run off before satisfactory results are obtained. This is especially true where automatic packaging equipment is being used.

Fig. 7 shows the "dozen" packer (which has been glued together by the supplier) formed with its contents correctly positioned. Here again the new employee can easily see the number and position of filled envelopes which are to appear in the packer.

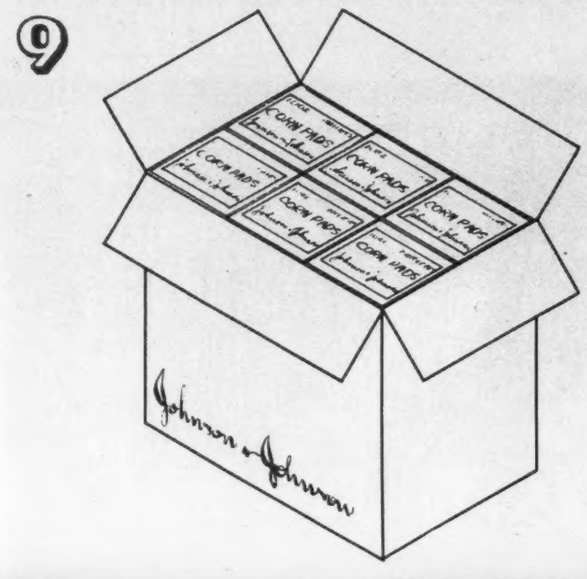
Fig. 8 shows the packer closed, with a printed label glued to the center of the top panel.

Fig. 9 shows the corrugated shipping case with 12 filled "dozen" packers positioned in place. Information necessary for the re-ordering of these cases is included in the sketch to avoid any possibility of mistakes when re-ordering from the supplier.

Fig. 10 shows the filled case stripped both top and bottom with kraft gummed tape. The contents label is positioned on the end of the case in order that all shipments will bear uniform labels, stenciling, etc.

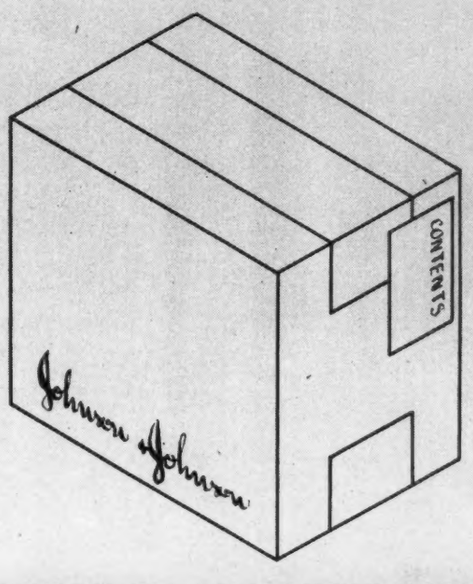
Production illustrations in packaging will help cut down training time, eliminate unnecessary operations and materials, and bring to all packaging employees the highest standard of operation.

The 200-lb.-test corrugated case (R.S.) holding 12 one-dozen packers of corn pads in the 10-cent size.



9

Case filled and stripped, top and bottom, with 2½-in. gummed kraft tape. All dimensions are inside measurements. Contents label goes on the end.



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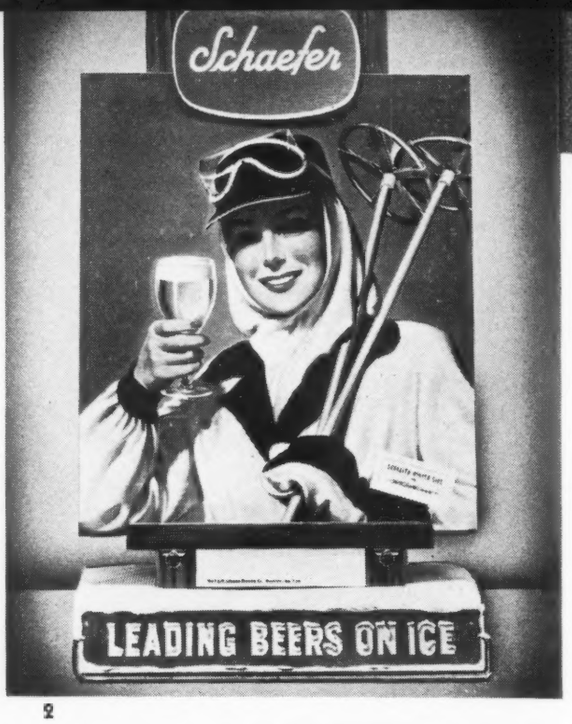


2

DISPLAY GALLERY

3

1 Nestle's is promoting its "Permanents of Heavenly Beauty" by means of its newest display distributed to beauty shops all over the country. The full-color photograph of the model is superimposed on a cloud-blue background with the name of the company appearing in brilliant red. Display, created and produced by Hussey-Woodward, Inc., New York City.

2 The first of a new series of displays for the F. & M. Schaefer Brewing Co. was installed in retail outlets during January. The series features oil paintings by Robert G. Harris and stresses the seasonal appeal by means of the model's wearing apparel. The main panel is so constructed as to appear to be an actual canvas resting on an easel. This easel holds the Schaefer logotype in a second plane. The simulated canvas may be removed from the display and hung up as a decorative piece in the window or inside the dealer's premises. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

3 A new type tilted display carton is being used by the Orthmann Labs., Inc., for its Panda Factory Finish for leathers.

4

This is a fairly simple one-piece folding carton which is set up without any complicated mechanism, there is no glued-on easel or any extra apparatus to use. The die-cutting arrangement combined with the locking feature permit this carton to be tilted forward for display without using any extra paperboard or adding to the cost of the carton. Carton, Sutherland Paper Co., Kalamazoo, Mich.

4 Liggett's Grand Central store in New York City is using an entirely new conception of a motion display. The window is made up of triangular sections with shelves on all three sides for merchandise. The triangles fit together in such a manner that when stationary they form a solid front. Every 45 seconds each section starts to turn in synchronization with the others and in 15 seconds another complete section of shelves is presented to the passerby. This turning display makes it possible to triple the display space of the window without the usual cluttered look which most drug store windows achieve. Turnsale Displayer, C. B. Reymers, New York.

5 A three-dimensional, full-color display for Stag cosmetics, a line sold exclusively through the Rexall Drug Stores, is being produced in two sizes. The one illustrated is the large window size which breaks down in the center for easy shipment. A small piece for counter use is an exact reproduction of the one shown here. Side pieces in green and white stress the various items in the line. Display, The United States Printing and Lithograph Co., Brooklyn, N. Y.

6 The Norwich Pharmacal Co. has created this display on behalf of the National Rehabilitation Program in cooperation with the drug, cosmetic and allied industries for the promotion of good health in American families now that peace has come. The easel-mounted reproduction of the painting is topped with the copy, "When he comes home . . ." and the Norwich seal is inconspicuously displayed on the base. It is suggested for use both as a window piece and as a decoration for the interior. Display, Kindred, MacLean & Co., Inc., Long Island City, N. Y.

7 A painting of a child's head holds the center spot on this display now appearing in drug store windows for Lederle's. The full display consists of seven pieces lithographed in full color, but it is suggested that, when used in smaller windows, some of the side pieces be used inside the store as effective tie-ins with the window. All the Lederle products on hand can be scattered about the window for added reality. Display, Forbes Lithograph Mfg. Co., Boston.

Orange juice

...frozen in cellophane bags

1—*Cellophane-sealed one-pound bricks of frozen orange juice are merchandised in colorful paperboard cartons like this one.*

The possibility of freezing orange juice on a commercial scale was first recognized around the year 1930. California roadside stand owners had been enjoying increasingly heavy purchases of orange juice which had been delivered to them and then frozen in their own refrigeration storage units. The popularity of the frozen beverage interested several concerns to the extent of venturing into this specialized field on a larger scale.

The pack of frozen orange juice grew rapidly from 1930 to 1938, reaching a peak of 3,300,000 lbs. in 1938. With the coming of the war, the industry was brought practically to a standstill. Now there is a revived interest in frozen orange juice in California.* One of the newer recruits in this field is Citrus Foods, Inc., Los Angeles, which has developed a method of packaging the juice in cellophane bags.

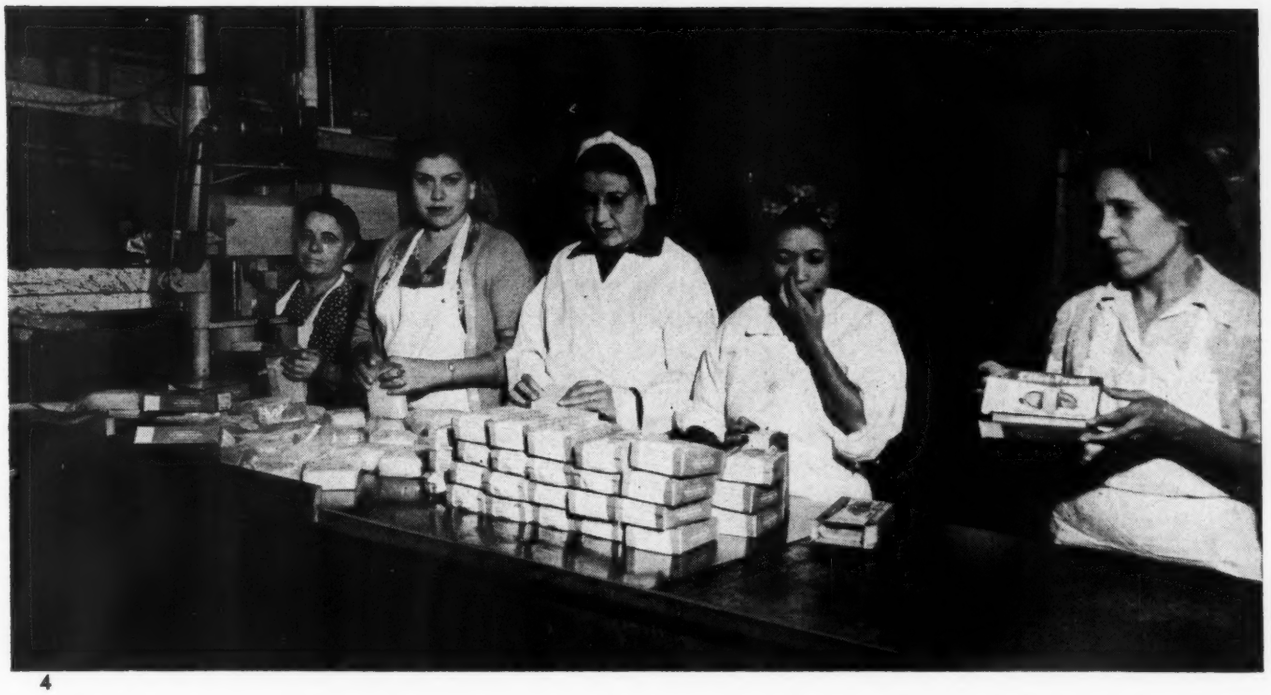
After the fruit is delivered by truck to the door of

* See "Frozen Orange Juice in Glass," MODERN PACKAGING, Sept. 1944, p. 105.

2—*Laminated cellophane bags are automatically shot down into metal forms and fitted in place with hand mandrels. Filling head releases 16 oz. of juice into each bag.* **3**—*With tops of bags unsealed, trays go into freezing tunnel where brine solution maintains temperature of —15 to 20 deg. Freezing takes 20 to 30 min.*

2

3



4

4—After bricks are removed from trays and bags heat sealed, they are packed into cartons shown in Fig. 1.

this plant, the oranges are tossed into a large bin to await processing. Only the desirable Valencia oranges are utilized. The fruit is removed from the temporary storage place as needed and dropped into a flume which carries the oranges first through a bin, where they are washed, and then upward to a small mezzanine.

Here, with an automatic cutter, the oranges are sliced and the halves dropped onto a long reaming table. The orange halves move into a rotary juicer and workers at the reaming table throw the remaining hulls into a disposal trough.

The juice is strained and superfluous pulp and seeds removed as it is conveyed through stainless steel pipes before being emptied into a specially designed 100-gal. holding tank. When the orange juice leaves this tank it is carried through nineteen $8^1/_2$-in. stainless steel tubes. In these tubes, enroute to the automatic filler, the juice is pre-cooled to 32 deg. F.

While this preliminary processing has been under way, 12-mold metal freezing trays are being automatically fitted with heavy laminated cellophane bags. A hand mandrel is used to fit the bag inside each mold. The tray moves on a conveyor under the filler, which automatically releases 16 oz. of orange juice into each bag in turn.

The juice-filled cellophane bags—still in the series of 12 metal forms—are then carried to the freezing tunnel, which is kept at a temperature of 15 deg. below zero by an ammonium brine solution. Trays require from 20 to 30 min. to move through the freezing tunnel and are removed by hand from the opposite end when finished.

The solid frozen cellophane-covered bricks are removed from the metal mold by dipping the tray in a tank of warm water. The open end of the cellophane is immediately heat-sealed and the bricks are passed along to other operators who insert them by hand into the colorful paperboard folding cartons in which they are sold.

Corrugated shipping cases hold 48 of these 1-lb. packages. The shipping cases are sealed and taken to the adjoining refrigeration room, and are of course kept at zero temperature throughout storage, transportation and sale to the eventual retail outlet where it is kept refrigerated until sold to the consumer.

A 6-lb. carton of orange juice is now being produced, packaged similarly to the 1-lb. size. The larger carton has been developed for consumption by schools, hospitals and other institutions.

Since it is possible to obtain Valencia oranges of the desired quality only ten months out of the twelve, Citrus Foods, Inc., plan their year-round working schedule by the supplementing of additional freezing of grapefruit juice and lemon juice.

In addition to the advantage of providing juice from tree-ripened fruit in any quantity without squeezing or waste, this packaging achievement makes possible a year-round supply of juice in areas where fresh fruit cannot always be obtained. It helps to market fruit which would be too ripe for shipment otherwise. The package provides the utmost in convenience, since there is no problem of disposal as there would be with incombustible materials.

CREDITS: *Cellophane bags by The Dobeckmun Co., Cleveland; paperboard cartons by Fibreboard Products, Inc., Los Angeles; filling machine by the Elgin Manufacturing Co., Elgin, Ill.*

The Grand Rapids test

. . . dehydrated foods accepted by 2 out of 3

*by James C. Moore**

Conclusive evidence as to the place of dehydrated foods in package merchandising remains to be found, but this report on the intensive Grand Rapids sales test brings out some interesting data. Two out of three housewives who bought the food found it satisfactory, but strong educational demonstration and advertising methods were required to keep sales going. Mass display was most effective.

Telescoped into small packages, dehydrated foods mushroomed in sales by more than 500% during the war.

Prime asset of these foods is the space-saving feature in transportation and storage. This same feature carried over as an asset into the peacetime period, according to results of a recent sales test in Grand Rapids, Mich., run by representatives of the industry.

The most likely market found in this test consisted of people living in small apartments—those who need to store food in small space. Dehydrated foods come to them in concentrated and convenient packages so they can amplify the storage space on their usually crowded kitchen shelves.

Campers and fishermen compose another good outlet suggested for these "war baby" foods, for the evident reason that dehydrated foods are easy to carry in their small packages and easy to prepare over a campfire. The test also bore out the fact that this type of food is convenient to ship to people living a good distance from production centers.

1—Typical mass display of special test sale brand of dehydrated foods in Grand Rapids store. Most housewives said they bought the foods because of such displays.

PHOTOS COURTESY FARM CREDIT ADMINISTRATION 1

This Grand Rapids test was run to give the dehydration industry some idea of the normal demand for their foods. Some food men have gone so far as to say, "Dehydrated foods have been frozen out." Dehydrators want to find out for themselves. So after selling for several months in this program they went out and asked a sample 500 of the buyers.

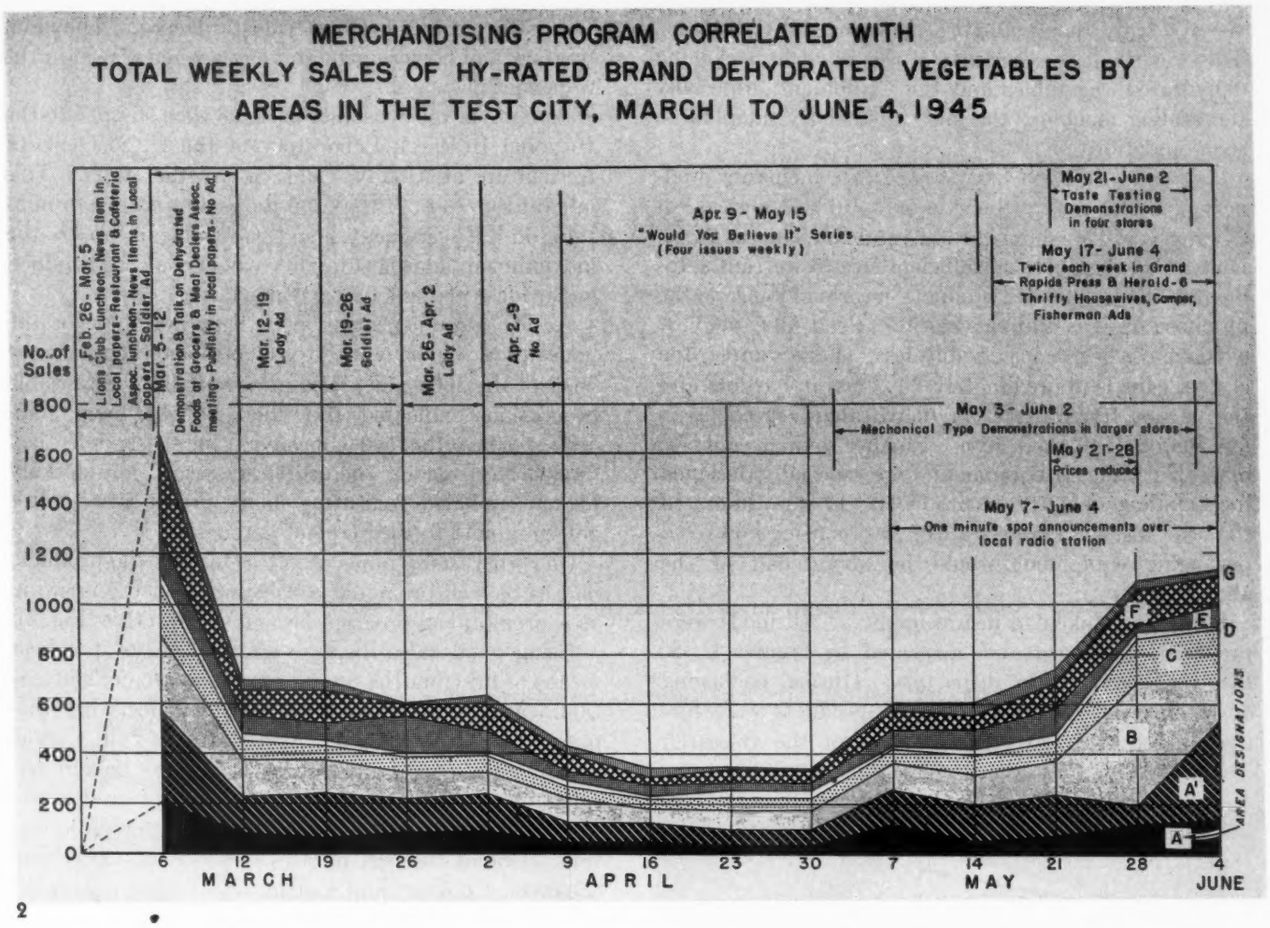
They reached this conclusion: There is hope for a fair market for dehydrated foods if their quality is good, if they are easy to prepare, if the price is reasonable enough to meet competition of other processes, and if a lively advertising program arouses the housewife's interest and teaches her how to prepare the food.

These conclusions were based on the sale of six dehydrated vegetables—diced beets, carrots, sweet potatoes, white potatoes, flaked onions and Julienne potatoes. The test was carried on from April to October 1945 by the U. S. Dept. of Agriculture, the National Dehydrators Assn., and other representatives of the vegetable dehydration industry.

A test sales committee was organized as early as August 1944, consisting of F. J. Holland (chairman), of Little & Co., Chicago; L. L. Branthoover, of the Dehydration Unit, Idaho Potato Growers, Inc., Idaho Falls, Idaho; F. Webster Browne, of H. C. Baxter & Bros., Brunswick, Me.; A. E. Burnett, of General Mills, Inc., Minneapolis; J. H. Hume, of Basic Vegetable Products Co., Vacaville, Calif.; R. J. Hooven, of the Beech-Nut Packing Co., New York; and the writer.

These objectives were set forth: To get information (1) on consumer acceptance of certain dehydrated vegetables distributed through regular trade channels;

* Formerly of the staff of the Fruit and Vegetable Section, Co-Operative Research and Service Division, Farm Credit Administration, U. S. Dept. of Agriculture, now Marketing Specialist, Oregon State College.



2

2—Necessity for strong promotion methods to introduce an unfamiliar package is strikingly shown by this graph. Sales never regained starting levels, but were rising at the end of the test when store demonstrations were combined with the newspaper and radio advertising programs. Price reductions also helped to push sales up.

(2) on costs of promoting a new product; (3) on the influence of income levels on sales and (4) on the probable place of dehydrated products in the home or camp.

First job of the committee was to set a reasonable price in comparison with fresh, canned or frozen products. The retail price was finally based on War Food Administration records of production costs and estimated costs of packaging, selling, advertising, etc.

Along with the pricing job came the problem of how best to present the product to the public. What form of container would protect it and dress it up best. The committee concluded that tin would be best. By the end of the campaign approximately 18,000 cans of each of the six items had been packaged in tin containers. Designed to hold four servings each, the cans varied in size. The beets were size 202 by 308, and the sweet and white potatoes 211 by 400, all hermetically sealed. The onion flakes were 208 by 308 in friction-top cans.

Research departments of both the American and Continental Can companies cooperated with the committee in determining the proper size for each food. They were also very helpful in seeing that the proper-size containers were made available after necessary priority clearances were obtained through the War Production Board. Other items incident to the packaging were supplied by the Reid, Murdoch Co., of Chicago. Assembling of all material for packaging was done at the Pierceton, Ind., plant of Reid, Murdoch.

"Rehydration" and cooking directions were printed on inserts and sealed inside each can.

All foods were sold under the "Hy-Rated" brand name. The full-color labels showed the food inside the can as it would appear when reconstituted. Several recipes also were given on the labels. These labels were developed in cooperation with the Rossotti Lithographing Co., Paterson, N. J.

Effectiveness of the packaging was shown by comments from six test kitchens collaborating on the experiment. Among these comments were:

"The clean, sanitary appearance of the package . . . is among the assets of dehydrated foods."

"Packages are practical and attractive. They also provide good recipe suggestions."

Stores were spotted throughout the city—45 of them—to give representative sales.

Careful records of costs of the products and packaging were kept, but the men in charge felt these costs

weren't truly representative of commercial operations. This was the first experience of this plant in packaging dehydrated vegetables and the equipment, especially the sealing machine, was not particularly adapted to such operations.

Average cost of packaging each can, including products, was 10.1 cents; the average total cost per case of 24 cans, ready for shipment to Grand Rapids, was $2.43. Had the project been of sufficient size to warrant shipment of the dehydrated products in carload lots, and the purchase of cans and cartons in carload lots, the cost would have been considerably less. For example, the cost of cans is approximately 20% less in car lots and the car-lot freight rate on dehydrated vegetables is less than half the l.c.l. rate. Further savings could be made if packaging equipment were especially designed for handling dehydrated products. It was estimated that the costs of a large-scale operation using improved packaging equipment would be about half of the above costs.

Steps were taken to insure quality. All foods were prepared, packaged and inspected by regular U. S. Dept. of Agriculture inspectors. During packaging operations at Pierceton, Ind., the products were further inspected by a representative of the Research Laboratory, Chicago Quartermaster Depot. They met military and Government standards when placed in the consumer package.

Samples of the consumer package were shipped to the Regional Research Laboratory of the U. S. Dept. of Agriculture at Albany, Calif., for further tests. This laboratory reported that the products were up to military and Government standards but not up to the maximum standards of quality which could be attained under ideal manufacturing conditions.

As for consumer reaction, two out of three of the housewives who bought the products liked them. On the basis of the 500 replies used as a sample, rather sizable proportions indicated they had bought more than once. When the 500 consumers were asked if they *would* buy again, percentages were considerably higher, probably indicating many people just hadn't gotten around to their second purchase.

One other thing came out of this test: The products had to be well promoted. Sales went on the upswing as a promotional program became more active (Fig. 2).

Using good sales displays proved one of the best means of bringing the product to the customer's attention. And a good colorful package effectively displayed helped do the job. As a matter of fact, a great many of the people interviewed said they bought because of the store display. Posters were used along with the display of the cans—usually in the humorous vein. One of the best phrases to be given a play was "Soakem, Cookem, and Eatem."

All angles were used in the promotional campaign. Luncheons using the foods were given by the local Lions Club and the Restaurant and Caterers Assn. A cooking demonstration which let the audience taste the finished product was given before the Retail Grocers and Meat Dealers Assn.

Newspapers did their part by carrying stories about the test program as well as three series of ads. Demonstrators worked in many of the stores. And radio voiced its part with spot announcements.

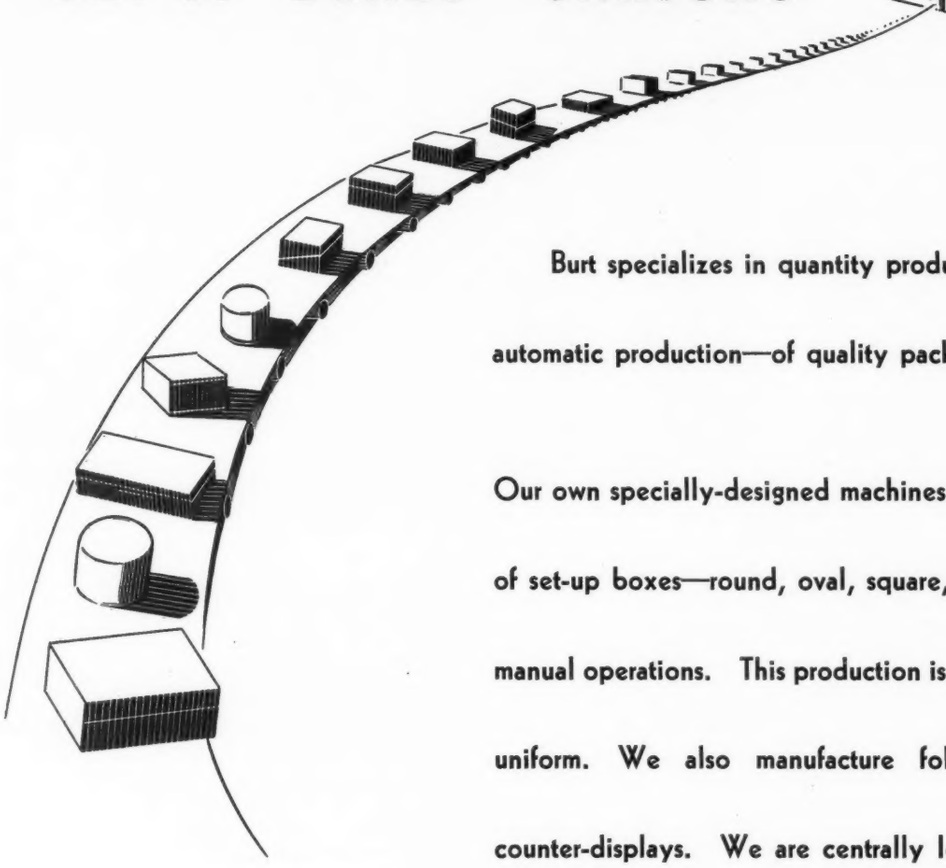
Combination of demonstrations in the stores with other advertising medium proved most effective. The greatest sales increase for any week came when a taste-testing type of demonstration was given in several stores at the same time ads were in full swing.

FULL SPEED AHEAD
ON THE
Hy-Rated Brand Foods
SPECIAL!
TONIGHT
EACH OF THESE STRIKING ADVERTISEMENTS APPEARS FIVE TIMES IN GRAND RAPIDS–
THIS CAMPAIGN REACHES PRACTICALLY EVERY ONE OF YOUR CUSTOMERS MANY TIMES, AS SHOWN BELOW!
Think of it! A MEALTIME TREAT FOR 4 PEOPLE IN THIS TINY CAN
BEETS
Hy-Rated Brand Foods
What do you Know!
a mealtime treat for 4 people in this tiny can
Hy-Rated Brand Foods
Imagine That... A MEALTIME TREAT FOR 4 PEOPLE IN THIS TINY CAN
Hy-Rated Brand Foods
no foolin'! A MEALTIME TREAT FOR 4 PEOPLE IN THIS TINY CAN
POTATOES
Hy-Rated Brand Foods
It's a Fact! In this tiny can a mealtime treat for 4 people
Hy-Rated Brand Foods

3

3—*The grocers were kept informed of all the advertising and promotional activities going on and were thus encouraged to keep up their mass displays of the foods.*

MANUFACTURERS *of* AUTOMATICALLY-MADE SET-UP BOXES — CARTONS



Burt specializes in quantity production—completely automatic production—of quality packages.

Our own specially-designed machines produce all shapes of set-up boxes—round, oval, square, oblong—with few manual operations. This production is quick, economical, uniform. We also manufacture folding cartons and counter-displays. We are centrally located to all forms of transportation: rail, water and highway.

F. N. BURT COMPANY, INC.

500-540 Seneca Street, Buffalo, N. Y.

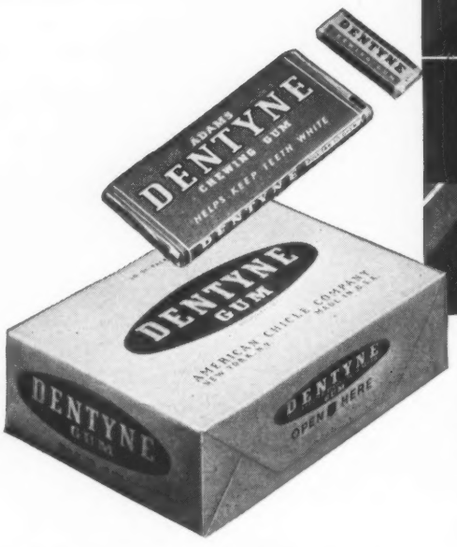
New York City - Philadelphia - Boston - St. Louis - Atlanta
Chicago - Cleveland - Cincinnati - Los Angeles - New Orleans
Memphis - Minneapolis - Kansas City
San Francisco: 1831 Pacific Ave. — Telephone EXbrook 5323
Newark, N. J.: 915 Military Park Bldg. — Telephone Market 3-0788

CANADIAN DIVISION
Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

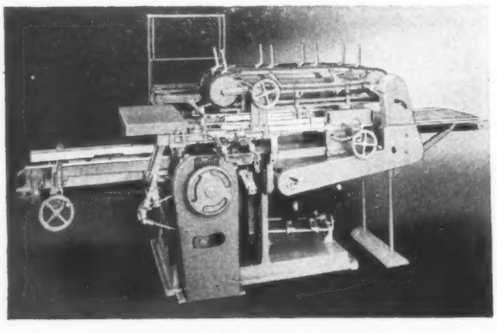
Where Packaging Efficiency must be at its HIGHEST...

...there you will find machines of the Package Machinery Co. at work.

COURTESY AMERICAN CHICLE COMPANY



The gum wrapping machines illustrated have conveyors for the cartons in which the gum is packed. One belt of the conveyor delivers empty cartons to the packers; the other carries the filled cartons to the FA wrapping machines which wrap them in printed wrappers, registered by electric eye.



MODEL FA WRAPPING MACHINE

Manufacturers whose products must sell at popular, standardized prices, have to employ packaging machinery that cuts costs to the bone. And yet the wrapping must be highly protective as well as attractive and of utmost convenience to the user.

The Dentyne wrapping machines illustrated above are an excellent example of how our modern machines meet these requirements.

Each unit in this line-up does a complete wrapping job. Gum is fed into the wrapping machines in the form of scored strips. The machine cuts these strips into individual pieces of gum and wraps hundreds of pieces per minute in printed waxed paper, the printing being registered by electric eye. It then assembles the wrapped pieces in groups of six, wraps each group in wax-backed foil, and inserts an easy-opening tape. The end-folds, seam and notch where the tape protrudes, are sealed by liquid wax to keep the gum fresh and tender. Finally, the printed paper band is glued around the package, with the design accurately located by electric eye. Two of our FA machines, located at the end of the line, wrap the cartons in which the gum is packed.

We'll help you lower costs

We'll be glad to make a survey of your present methods and equipment with a view to giving you faster, more economical wrapping—and a better, more attractive package.

Write for our booklet "Sales Winning Packages"

PACKAGE MACHINERY COMPANY, Springfield 7, Massachusetts

30 Church St., New York 7 • 111 W. Washington St., Chicago 2

101 W. Prospect Ave., Cleveland 15 • 443 S. San Pedro St., Los Angeles 13

18 Dickens Ave., Toronto 8

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Packaging metal parts

2. Final corrosion protection and unit packaging

*by Dr. Charles E. Waring**

Wartime techniques for corrosion-proof packaging of metal parts were developed to a fine point and will be modified and adapted to countless peacetime applications. This article, second of a series by Dr. Waring, discusses some of the more recent developments in Methods I, I-A and II.

During the period of war development of packaging techniques, certain methods were standardized and given a standard nomenclature. These methods have become generally known as Methods I, I-A, I-B and II. It is outside the scope of this particular article to outline the procedures for these methods in complete detail. Briefly summarized, they are as follows:

Method I consists of the preparation of a clean metal part followed by coating with a corrosion-preventive material having a wax, grease or oil base. The part is then wrapped in greaseproof neutral paper which protects the corrosion-preventive compound from damage in handling and also serves to hold it on the part. The greaseproof character of the paper prevents leakage of these corrosion-preventive materials and consequent "messy" handling. In Method I, this greaseproof wrapping material is never sealed and a corrosion-preventive compound must be of such quality that it alone will prevent corrosion due to liquid water, moisture or atmospheric conditions.

Method I-A is a modification of Method I, using a corrosion-preventive film to protect the part plus a greaseproof neutral wrapping material which is also sealed so that the wrapping is completely waterproof. In this case, the corrosion-preventive compound must protect only against moisture sealed in the atmosphere in the package, while the waterproof sealed wrapper protects against liquid water and other exterior corrosive agents.

* Technical Assistant to the President, Davison Chemical Corp., Baltimore, Md.

In Method II packaging, an entirely different technique is used. It has been found that metal parts will not corrode in an atmosphere in which the relative humidity remains below 30%. Method II makes use of this observation and incorporates the enclosure of the part within a sealed barrier which is not only liquid waterproof, but water-vaporproof. A desiccant is also incorporated in the package which combines with the water-vapor in the air so that the original air within the package is not only reduced to a low relative humidity, but the water-vapor which slowly diffuses through the barrier is also absorbed for a long period of time. When the water-vapor transmission rate of the barrier is known, it is possible to compute the quantity of desiccant required so that almost any known protection period can be provided for.

Method I-B consists of enveloping the part in a hot-melt plastic compound. This will be discussed in a

1—Example of a peacetime commercial corrosion-proof pack is this package for a Dictaphone, using cartons within a carton. The machine itself is protected by Method II, with silica gel and a metal foil barrier; accessories box, above, is wrapped and sealed in Grade A paper.

(*Page 143*)

later article which will be devoted solely to that subject.

These methods have been so widely publicized during the war that the definitions are widely understood throughout industry. Certain standards of performance have come to be associated with these methods. However, these standards of performance are largely governed by the specifications applied to the materials used. For example, the quality of the corrosion-preventive compound and of the greaseproof paper determine the performance to be expected from the Method I pack.

It is undoubtedly true that these methods will continue to be used throughout industry for postwar packaging. In order to achieve cost saving, it is quite possible in many commercial operations that control standards for the materials used may be lowered. This will be true because commercial requirements are not as severe as the conditions imposed by military operations. Since it is the material which really determines the performance of these methods—assuming that the necessary processes are carried out with proper attention to detail—it is desirable to consider the availability of the various materials and their ultimate place in the postwar picture.

Corrosion-preventive compounds as used in this war were little different in conception from what they were in World War I. Many rifles, machine guns and similar matériel were coated with corrosion preventives at the end of the last war and placed in storage. They were still in good condition when unpacked for use in World War II. Performance of corrosion preventives has been improved in minor details and the general level of protection has been raised, but no radically new developments have been made.

The outstanding accomplishment in this field has been the improvement of the so-called dual-purpose type of corrosion-preventive compound. This type of compound performs two functions: lubrication and corrosion protection. These compounds have reached a very high state of perfection, and by the end of World War II it was possible to obtain materials that functioned as lubricating oils almost as well as the present lubricants and still offered as much as 50 times the corrosion-protection value of the usual uncompounded mineral oil. These oils made it possible to lubricate all

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***2**—Application of adhesive to I-A package using Grade C wrapper.* ***3**—An overwrap is advisable to avoid blocking of wax-dipped cartons.* ***4**—Proper marking is essential. Label should be placed under band of transparent tape.* ***5**—Rain spray proves I-A package resists water penetration.*

types of equipment with an oil which would protect against corrosion for many months. They will undoubtedly find widespread continuing application throughout industry.

Considerable progress has been made in the use of greaseproof papers. Before the war, greaseproof papers were widely used by such companies as ball bearing manufacturers, since it has always been the custom to ship ball bearings coated with a corrosion-preventive compound. The greaseproof paper used was usually a lightweight glassine which had adequate greaseproof properties and which did not permit leakage of the oily compound.

It had also been found necessary by the bearing industry to require that such papers be non-corrosive. Some papers were found to promote active corrosion in connection with metal surfaces and this was believed to be due to acid residues in the paper, which originated in certain manufacturing processes. The bearing industry developed a contact corrosion test in which a bearing race was suspended in a sling made of the paper on test and exposed to a high humidity atmosphere for a 72-hr. period. Experience has indicated that a satisfactory paper would produce no rust spots where it came in contact with the metal under the conditions of this test.

When it became necessary to prepare Army specifications covering a similar type of material, it was decided to control this characteristic by placing limitations on the neutrality and the acid content of the paper. It was also decided to dye the paper red, using a certain dye which would change color if the paper varied greatly from the neutral point.

For the control of greaseproofness, a test was adopted which had been in use in the paper industry for many years, called the turpentine-penetration test. This measured the resistance of paper to the penetration of turpentine rather than grease, but years of experience had demonstrated a satisfactory degree of correlation between the two properties.

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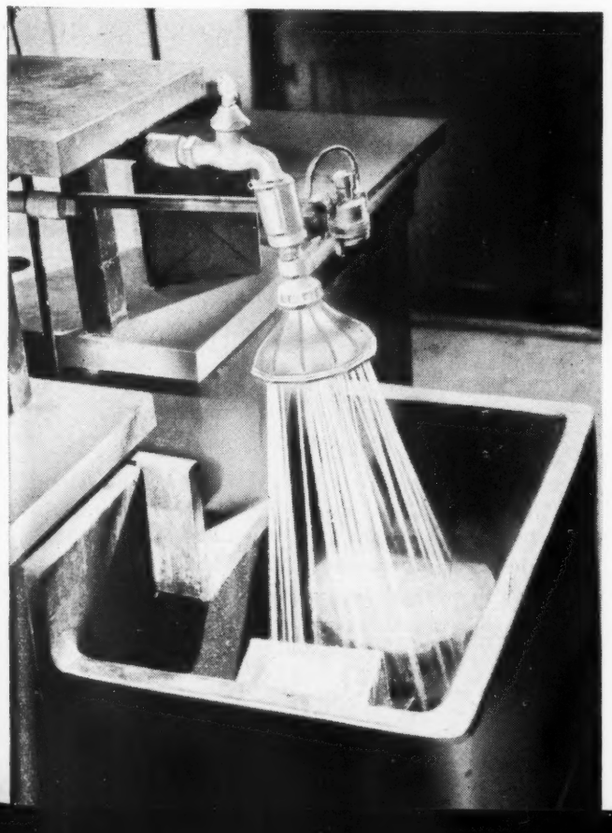

The original demands for papers of this type, designated Grade A, were quite small, but as Army requirements grew, they exceeded all expectations, eventually soaring to many millions of yards per month. Thus, industry became widely acquainted with their usefulness and availability. It is undoubtedly true that papers of this type will remain in very wide use and will be widely distributed by many paper manufacturers.

After the Grade A paper had been in use for approximately a year, a new development appeared in military packaging. A leading company in the corrosion-preventive field had developed a special type of wrapper for the protection of pipe lines against the corrosive influences encountered in contact with all types of soils and ground water conditions. The outstanding characteristics of this material were strength, availability, moldability and a considerable degree of self-sealing. Parts of irregular shape could be wrapped in such a way that the wrapper would conform almost entirely to the irregularities, and the self-adhesion would be sufficiently great so that the wrapper was almost waterproof. In many instances, it could be made completely waterproof by dipping in a bath of microcrystalline wax so that any remaining crevices would be sealed by the over-dip.

These materials became the basis of the I-A technique previously described, and it was soon found necessary to cover them by specification, since the demand grew so rapidly that it was beyond the capacity of any single manufacturer to fill. Accordingly, they were designated Grade C, and the same specification requirements of greaseproofness, neutrality and freedom from acid content were written into the specifications. An additional requirement for moldability was added, and it was specified that these materials should be colored green for the sake of identification, in order to distinguish them from Grade A.

Grade C required plant expansion

The Grade C materials also became very popular with industry, and tremendous expansions in plant capacity were required. Since most of these materials also contained large percentages of microcrystalline wax, the urgent demand by industry required the expansion of facilities for production of microcrystalline wax and ultimately resulted in more than doubling that capacity. This widespread use in industry will undoubtedly continue, since it is based on quite unique properties.

The success of the technique which came to be known as Method II depends entirely on the availability of satisfactory water-vapor barriers and desiccants. These two materials are the essentials for good packaging for this method.

Several years before the war, this method had been

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tried out commercially for the export shipment of automotive engines for foreign assembly plants. Silica gel was the desiccant used and 30–30–30 asphalt kraft laminated paper was the water-vapor barrier.

It soon became apparent that more efficient water-vapor barriers would be necessary in order to make this technique entirely successful. Of course, metal cans could be used, since the water transmission rate of metal is substantially zero, but during most of the war years metal was not available for such applications.

First wartime application

Based on the experience with automotive engines, the first major application of the method for wartime use was in the shipment of airplane engines. For this purpose, Pliofilm was the water-vapor barrier used. It had the advantage of being both flexible and transparent. Sufficient experience was soon gained to enable the establishment of specifications covering both desiccants and water-vapor barriers for the purpose. Originally, a maximum water-vapor transmission rate of 0.25 gram per 100 sq. in. per 24 hrs. for a vapor-pressure differential of 42 millimeters of mercury was established. For the desiccant, it was determined that it should be non-dusting, insoluble in water, non-corrosive in contact with metals and that it should have ample absorptive powers at low relative humidity.

Once the standard was established for water-vapor barriers, other materials began to appear on the market. Saran, a film made from polyvinylidene chloride, was introduced. This material was transparent, flexible, resistant to a wide range of temperatures and had an extremely low water-vapor transmission. It had one drawback in that it was manufactured only by a continuous extrusion process which formed it into continuous tubes which were available in a wide range of diameters. Sheets could only be made by slitting these tubes. It was also difficult to heat-seal by conventional means. However, it does have the lowest water-vapor transmission rate of any transparent barrier available today.

It was soon found that many of the materials previously described as Grade C wrappers had an extremely low water-vapor transmission rate. By using the technique previously described in making Method I-A, such as wrapping with Grade C and sealing with an over-dip of microcrystalline wax, all that was needed to make a good Method II package was the addition of silica gel. This was very advantageous, as many companies had Grade C wrappers and microcrystalline wax already available, with personnel trained in their use. As a result, millions of Method II packages were made using this combination of materials, and they have given a very good account of themselves all over the

6—Preparation of 90-mm. gun for application of a sprayed film moisture-vapor barrier. Metal bands and cellulose tape form network to be bridged by cobweb-like coating.
7—Rear view showing taping preparation of webbing.

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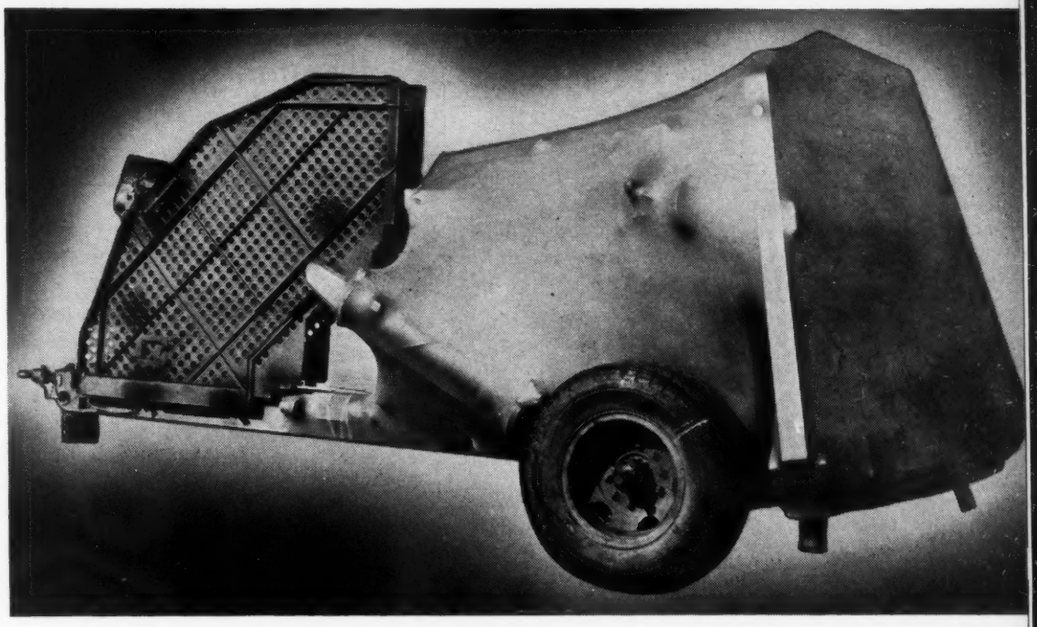

8—Completed gun package, with all working parts enclosed in an envelope of tough vinyl film which has a WVT rate of 0.35 to 0.50. This is Method II pack for long-term corrosion-proof storage. **9**—*Precision instruments, such as this Sheffield visual gauge, will continue to use conventional Method II pack, employing silica gel and a heat-sealed Pliofilm bag.*

world. They can be made without the use of special heat-sealing equipment and since the materials are also very moderate in price, this combination has been justifiably popular.

Recently a new variation of this basic idea has been coming into use. This involves substituting aluminum foil approximately 0.001 in. thick for the Grade C wrapper. The metal foil may be used either as a conforming wrap or as a carton over-wrap. The package so made can then be dipped in microcrystalline wax in much the same way as the Grade C wrapping.

Sprayed films as barriers

Another very interesting development in the field of water-vapor barriers is the use of sprayable films. These films were brought to their present high state of advancement by the Naval Ordnance Laboratory. They have been used to protect guns and other armament equipment for shipping and for long-time storage. With this technique, any irregularly shaped object can be enclosed in a plastic envelope by means of a spray gun, used with the proper materials.

Two different types of solution are used. The first type sprays a cobweb which will bridge distances of a foot or more; the second solution forms a continuous plastic film up to 30 or 40 thousandths of an inch in thickness on top of the previously sprayed cobweb support. Where distances to be bridged exceed a foot or more, an irregularly shaped object can be streamlined by bridges of tape at sufficiently short intervals. This network of tape then forms a support for the cobweb layer. These sprayed films are based on vinyl plastic and have a water-vapor transmission of approximately 0.35 to 0.50 gram for a thickness of from 30 to 40 thousandths of an inch.

While films of this sort can be used as the barrier in Method II packaging, they are greatly improved by the use of an asphalt compound over-spray.[1] By the use of this over-spray, water-vapor transmission rates of the order of 0.10 gram are obtained. The combination of materials has been widely used by the Army[2] in the layaway of anti-aircraft guns as well as in other matériel.

(In the third article of his series, next month, Dr. Waring will discuss recent developments and peacetime applications of hot-melt plastic strip coatings, or Method I-B.)

[1] "Protek-Coat," developed by the Davison Chemical Corp.
[2] See *Chemical Engineering News*, 23 (Sept. '45), p. 1628.

9

Case liners . . . an outline of requirements

*by Walter. L. Hardy**

OF all packaging materials, from the corrosion-preventive compounds to the finished shipping container, the case liner has received the least amount of critical technical study. Prior to the recent research initiated by the WPB, results of which were published in MODERN PACKAGING (May and December 1945), technical literature on this subject was almost totally lacking.

This largely accounts for the many reports of case liner failure received by the military services from all the theatres of operation as well as from various domestic activities.

Failures occurred in the case liner materials, their seams and closures. In many instances the case liner appeared in excellent condition, but the contents of the package showed serious rust and corrosion. As an example of this latter condition, 2,000 engine crankshafts shipped between and stored in domestic activities were found heavily rusted less than a month after packing, even though the case liners seemed to be in excellent condition in each shipping container.

Considering both the overseas and domestic experience in case liner failure, the following items bear careful consideration in the selection of a proper and effective liner for peacetime commercial shipments: water resistance, water-vapor transmission rate, method of sealing and closing, flexibility and stretch, and tear and abrasion resistance. Each of these factors will be considered in more detail.

Water resistance

Since the primary purpose of a case liner is to prevent the entry of liquid water into the package, the ability of the liner material to withstand water penetration must be the first consideration. The finished case liner should be able to withstand a submersion test and a tropical rain test; these translate into an ability to withstand hydrostatic pressure and the ingress of water due to capillary action.

* General Manager, Protective Coatings Corp., Belleville, N. J. Formerly Lieutenant Colonel, USAAF, and chief of the Container and Packaging Branch, Engineering Division, Air Technical Service Command, Wright Field, O.

The case liner for a corrosion-proof shipping pack must be waterproof but at the same time highly permeable to water-vapor, in order to dissipate residual moisture from within the package by a breathing action. Lack of understanding of this principle has been responsible for many puzzling failures of case liners, general specifications for which are discussed in this article.

Various tests performed by the technical agencies of the Armed Forces and by the U. S. Forest Products Laboratory have clearly defined the importance of the latter. Many cases of water penetration due to capillary action have been noted even with moisture-vapor barriers during the cyclic weather test. The cooling effects of rain water on the test container and the evaporation of moisture from the surface of the container result in decreased pressures within the sealed barrier, thus facilitating the ingress of water by capillary action.

The last specification on waterproof barriers (JAN-P-125, Barrier Materials, Waterproof, Flexible) dated Oct. 31, 1944, requires a minimum water resistance on the creased sample of 12 hrs. This is a variation from previous specifications (U.S.A. 100-14A, U.S.N. 39P-16a), which called for minimum water resistance ranging from 8 to 48 hrs. depending on the material and its application. Many materials have been able to comply with these requirements but at the same time have proved completely inadequate on service test or on the basis of field experience.

The laboratory test may prove useful for development purposes and definitely should be retained for routine inspection procedures. However, a definite minimum value should not be assigned for the water-resistance requirement. In its place, water resistance should be determined on the materials which successfully pass laboratory and field service tests, and these values should be assigned to the materials as minimum water-resistance requirements on all subsequent samples. A hydrostatic pressure test should also be performed and the value obtained assigned as the minimum requirement of all subsequent samples.

The service or performance tests should be performed as follows:

Prepare a container in which no dimension is in excess of 30 in. Insert the waterproof case liner to be tested and pack the container to a total weight of 70 to 75 lbs.

The container shall then be dropped corner-wise from a height of 30 in. onto a solid steel or concrete surface in such a manner that the corner of the container absorbs the full force of the fall. This test shall be repeated until each of the 8 corners of the container has received a fall. The height of 30 in. refers to the distance from the steel or concrete surface to the nearest corner of the container when suspended prior to the fall. The fall shall be free-fall, in that no ropes or other suspending media are attached to the container during the fall. If the container is of the drum type, the top

and bottom of the drum shall be marked so that the circle of the top and bottom is quartered, and the above test shall be applied to each of the quartered sections alternately.

At the end of the test the container shall be allowed to stand undisturbed for 24 hrs. and shall then be subjected to the following test:

1. Four hours at 120 to 130 deg. F., 95 to 100 deg. R.H.
2. Two hours at 70 to 90 deg. F.
3. Two hours at 0 to minus 10 deg. F.
4. Overnight at room temperature and humidity. Repeat this for three consecutive times, then continue as below:
5. Four hours at 120 to 130 deg. F., 95 to 100 deg. R.H.
6. Two hours at 70 to 90 deg. F.
7. Two hours of top water spray at approximately 60 deg. F.
8. Overnight at room temperature and humidity. Repeat this second cycle four consecutive times, then place the package in an immersion tank under 1 ft. of water for 24 hrs.

Following the test, open and inspect the shipping container and packages. There shall be no water or soggy or wet material within the package. The parts within the package shall show no corrosion or other deterioration. The waterproofness of the material should be based entirely on the successful completion of this test.

Water-vapor transmission rate

While this may be a new concept in the determination of a satisfactory case liner material, the importance of a high water-vapor transmission rate cannot be overstressed. No packaging engineer would specify a sealed water-vaporproof barrier without the concurrent use of a dehydrating agent. Still, in practice, this is happening every day, since the majority of the present waterproof materials fall in the range of water-vaporproofness as well.

Various papers, both infused and uninfused with asphalt, are cemented with asphalt to form duplex and triplex laminations, which invariably fall in the range of water-vapor barriers. Laminations of paper with metal foils, fabrics and plastics are being fostered as waterproof materials while at the same time they are unusually water-vaporproof. Such materials are waterproof and will make a satisfactory case liner provided a dehydrating agent is placed in the sealed

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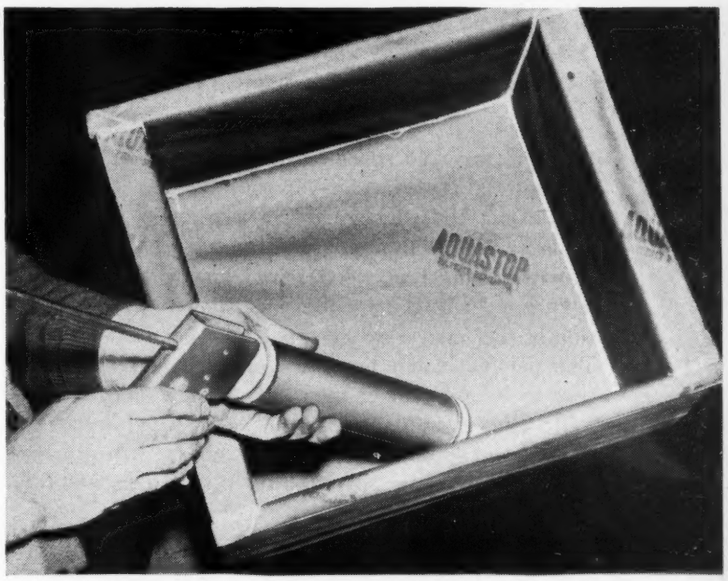

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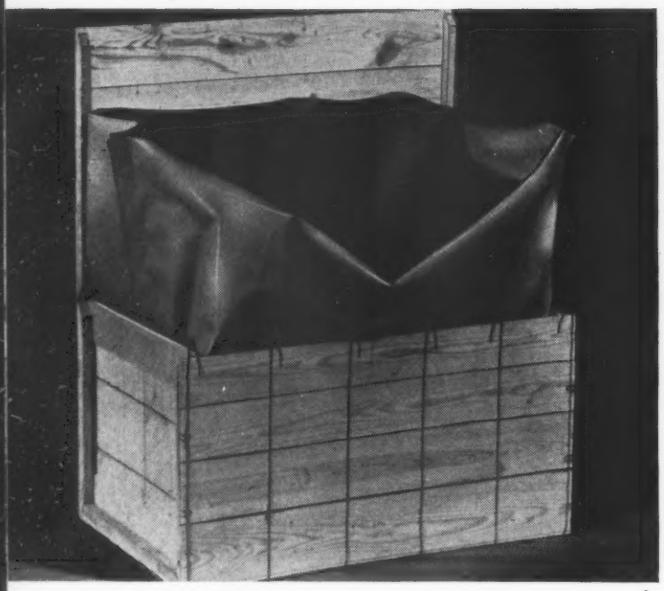
1—Inserting a pre-fabricated, heat-sealed case liner into a wooden shipping case. This is an example of a plastic impregnated and coated fabric material which is strong and waterproof, but satisfactorily permeable to water vapor. **2**—*Where case liner is formed in panels, strong chemical seal can be applied to joints with a gun similar to a caulking gun.* **3**—*Demonstrating the strength of a simple chemical seal—strong as the material itself.*



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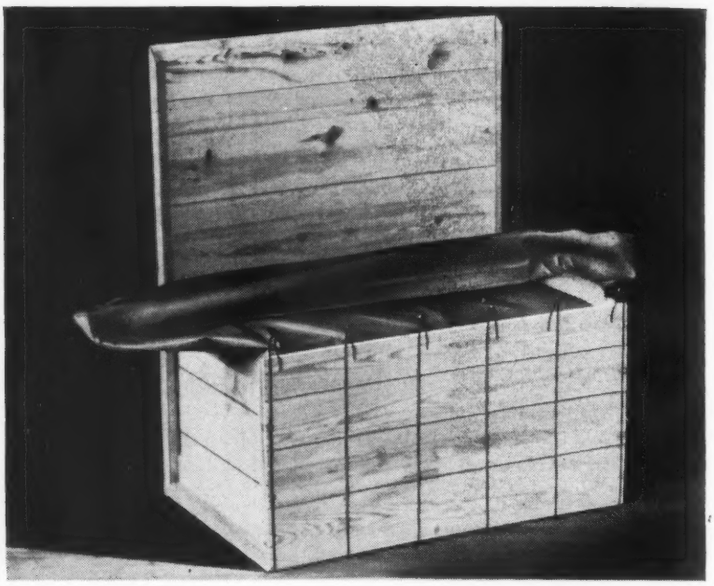

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4—With a good case liner, properly sealed at all points the wirebound box makes an adequate shipping package. **5**—*Showing how the top of the case liner is folded and drawn in preparation for final heat seal.*

liner—if any void space exists—to offset the fact that the material is also water-vaporproof.

Consider the packaging of a large item. The item is placed on a skid or tray and the assembly placed in a waterproof-lined plywood box. The waterproof liner is then sealed—but in doing so, due to the construction of the liner, a water-vaporproof barrier is created. The packing room humidity may be high, the skid, tray or other dunnage may have a high moisture content; thus moisture trapped inside a sealed barrier, on repeated evaporation and condensation, will do more damage than would have resulted if no barrier had been used.

The importance of the water-vapor transmission rate in specifying waterproof materials was recognized early in 1942 on the basis of laboratory service tests. Some early specifications called for a minimum water-vapor transmission rate while others cautioned against sealing a package containing any void space, so as to effect a "breathing package."

On the basis of experience, it is believed that the water-vapor transmission rate should be specified as a *minimum* of 5.0 grams/100 sq. in./24 hrs. (Southwick method). The *higher* this transmission rate, provided all other requirements are met, the more effective will be the case liner.

Method of sealing and closing

On this point, much of the blame for failure must be placed. Several factors are important here:

1. Inadequate adhesives.
2. Introduction of the "human element" and poor "shop practice."
3. In some cases, attempting to make the liner an integral part of the box.

A substantial waterproof adhesive must be used. This may be accomplished by specifying the adhesive or cement on the basis of the cyclic and rough-handling tests given above.

Every effort should be made to eliminate the "human element" and poor "shop practice" from the sealing and closing operations. The employment of prefabricated liners will do much to offset these variables. Improved adhesives and cements and the application of heat-sealing materials to the liner to allow the use of automatic heat-sealing equipment for sealing and closing are other means of control.

The practice of applying waterproof liner panels to the sides, tops and bottoms of boxes before assembly should be discontinued unless a waterproof seal is subsequently made which is as strong or stronger than the liner material itself. When the liner is made an integral part of the box it is subject to all the abuses concomitant with shipping conditions. Should the box be knocked out of line or damaged, the chances are the liner will suffer as well. A prefabricated bag liner, independent of the box itself, is the surest way of eliminating this source of damage.

Flexibility and stretch

The importance of these factors was shown by the recent report on WPB tests by H. A. Wolsdorf and E. G. Mullen.[1] The material must have sufficient flexibility and stretch between minus 20 deg F. and 170 deg. F. to insure against rupture and failure within this temperature range under the hazards of normal shipping conditions. It is suggested that flexibility be specified at a minimum of 400 in the machine direction and 800 in the cross direction, using

[1] "Testing Case Liners," MODERN PACKAGING, Dec. 1945, pp. 154–155.

the Downs method. The stretch may be specified at a minimum of 10% in the machine direction and 5% in the cross direction. The higher these values, the less frequent will be the damage to the case liners due to rough handling under widely varying temperature conditions.

Tear and abrasion resistance

These are important requirements to insure satisfactory mechanical service of the case liner. The use of prefabricated bags and proper interior packaging will offset the requirements somewhat. However, it is suggested that the tear strength be specified at a minimum of 500 grams in both the machine and the cross direction.

The tensile strength in pounds per inch of width should be determined on both the wet and dry material, both machine and cross direction. The tensile strength of the dry material should be approximately 50 lbs. per in. of width, with the strength at least 50% of the dry strength.

Many abrasion tests have been developed in an attempt to correlate with actual abrasion found from field experience; none has been successful. Observation on abrasion resistance can be made on completion of the rough handling tests given above; any serious indications of abrasion should be sufficient cause for rejection.

It should further be pointed out that an accelerated aging test should be performed on the material when it is definitely known that the finished package will be subjected to exceptionally long-term or unusual storage conditions.

New case liner materials

A wide variation from the conventional paper-base case liner is a plastic impregnated and coated fabric material which is being marketed under the name "Aquastop."[2] Exceeding the requirements specified herein, this material gives vindication for these requirements by its outstanding success under varying war shipping conditions.

This type of material meets all the waterproof requirements and at the same time has a water-vapor transmission rate of 10.0 grams/100 sq. in./24 hrs.—truly a "breathing" package. The material can be heat-sealed or chemically sealed with a special cement, making a seal which is as strong as the base material itself. Other physical requirements exceed those specified above.

In the recent test performed for the Container Coordinating Committee of the WPB by the National Bureau of Standards, previously referred to[1] this material exceeded the average of the 12 next best materials out of a total of 31 by the following:

	Number of boxes with dry contents	*Number of boxes with no holes or tears*
1. *Arctic test*		
Average of 12 best	89%	72%
Plastic impregnated and coated fabric	96%	88%
2. *Tropic test*		
Average of 12 best	61%	53%
Plastic impregnated and coated fabric	92%	84%

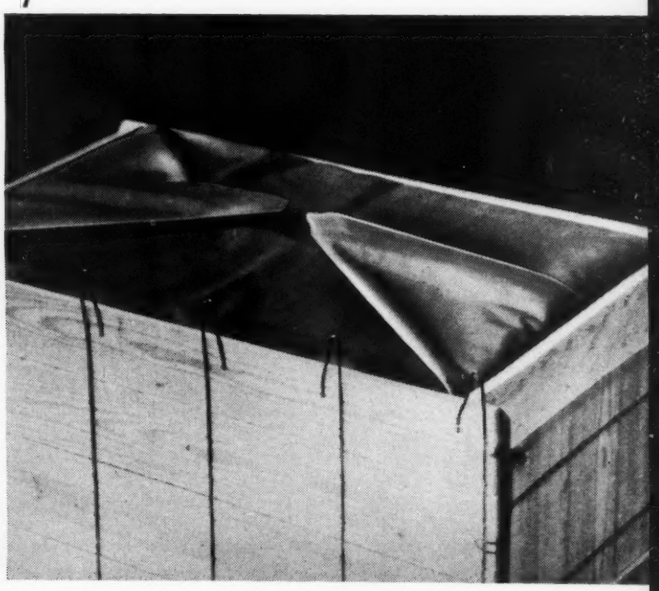
Thus by laboratory tests, as well as field experience, the above suggested specification requirements are well founded and should aid considerably in improvements on case liner materials.

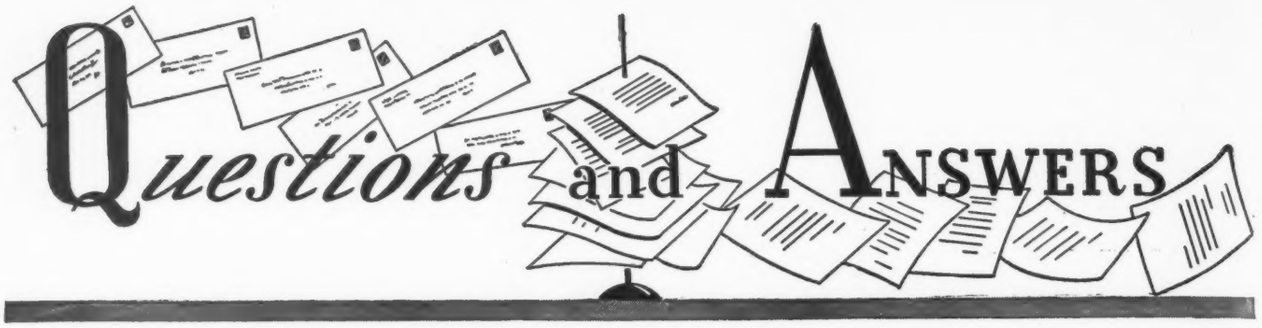
[2] Trade name of Protective Coatings Corp.

6—Applying final heat seal with an electric iron. *7—The completed pack, with ends properly folded in.*

6

7





This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Protection for chocolate

QUESTION: In the packaging of a chocolate product, small pieces in a carton, is there any carton on the market that will give enough greaseproof protection?

ANSWER: Most chocolate products contain a high percentage of fats (up to 50% in some cases) and so this product requires a high level of greaseproofness if the package is to remain on the shelf or counter through the summer months.

During cool weather, or in special storage, such a chocolate product would be packaged in a carton with very little greaseproofness. This is possible because in cool storage the cocoa butter or other fat is solidified and does not penetrate or flow enough to be absorbed or stain the carton. In warm storage the fats melt or liquefy and are rapidly absorbed by and stain the carton unless some kind of greaseproofness is provided by the carton stock or unless a greaseproof liner is used.

It may be more costly and involved to attempt to make a carton of greaseproof board to perform for long exposure in any area or condition. Your carton manufacturer can supply you with samples of various kinds of greaseproof boards made up into cartons. Your tests will indicate the preferred construction.

Another solution would be to use a greaseproof liner in a carton. The liner should be made from cellophane, parchment or a glassine type paper. The liner would not have to be sealed although sealing would give greater greaseproofness. Such a liner would be formed and inserted by automatic machinery.

Metal strips for coffee bags

QUESTION: We are interested in the metal strip attached to the top of a paper coffee bag. Can you tell us how this is done? We would like information concernning the name of the tool or machine manufacturer and the name of the company which furnishes the metal.

ANSWER: There are many types of so-called tinties and many methods for applying them to bags of various kinds. At least some of these methods and constructions are patented and you should, therefore, obtain these patents before undertaking to perform these operations in your own plant.

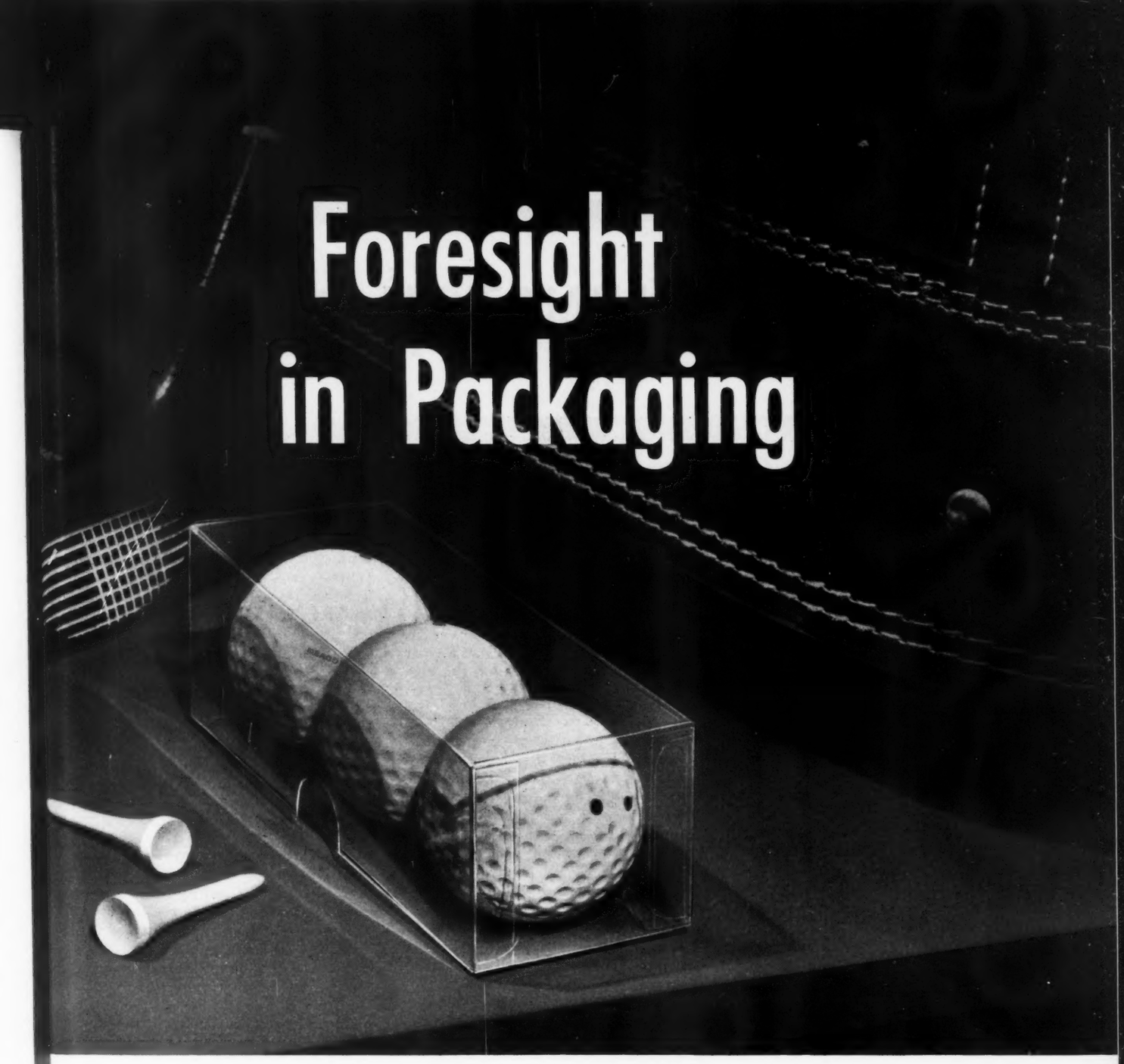
Apparently, each manufacturer uses a somewhat different kind or type of metal—some prefer wire and others thin strip metal. Some of the metal may be galvanized, treated in some way, or regular iron. On this basis, many companies could be considered as suppliers of this stock. The general process of manufacture and application is first to cover the metal with a paper strip, using an aqueous type adhesive and rolling the paper down to form a flat band. This band is then fed through an operation which adheres it to a paper tab. The finished tintie then goes into the bag machine, where it is attached to the bag at the proper point. The whole operation is integrated with the manufacture of the bag.

Polyethylene film in frozen food packaging

QUESTION: We are very much interested in the article on page 107 of the November issue of MODERN PACKAGING *concerning polyethylene film. Is this film suitable for the packaging of meats and poultry to be frozen? If it is, is there any possibility of it becoming available in this country within the relatively near future?*

ANSWER: There does not appear to be a great deal of published information on the physical or functional properties of polyethylene films. However, this film appears to have excellent low temperature flexibility and good water-vapor resistance. It also has a very strong heat seal, being odorless and tasteless and inert to many foods and reagents.

At the moment, this film is not being offered commercially, although several companies are making experimental quantities, mostly in heavier gauges, that is, thicknesses greater than 0.002 in. As a result of the limited quantities of film which have been produced, most converters or bag manufacturers have had very little experience with this film, especially because it is rather difficult to handle. The film is very soft and can only be heat sealed with special equipment; otherwise, a slipsheet of some kind must be used over the sealing faces to prevent adherence to the hot sealer.



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Eastman Acetate Sheet opens the packaging book to a fresh, more appealing page . . . injects sparkle and a feeling of top-flight quality.

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Forming properties, toughness, dimensional stability—plus transparency—combine to make Eastman Acetate Sheet an ideal solution to modern packaging problems. It can be drawn, beaded, folded, scored, crimped, stapled, and joined with either solvent or glue-type adhesives. Beautiful printed effects are readily obtained. Rolls or sheets are supplied in three types—clear transparent, matte translucent, colored translucent.

You are invited to visit the modern Kodak Packaging Laboratory in Rochester, where Kodak technicians will demonstrate for you how easily Eastman Acetate Sheet can adapt itself to your packaging requirements. Write for an appointment.

EASTMAN ACETATE SHEET

Cellulose Products Sales Division

EASTMAN KODAK COMPANY, ROCHESTER 4, N. Y.

Kodak

WASHINGTON REVIEW

● **Can Control Changes**—Users of cans for packaging now may operate under a recently promulgated OPA amendment. Under the amendment, a method is established for calculating ceiling prices on cans of electrolytic tinplate. The new ceiling price is the March 1942 price for a hot-dip tinplate can less the difference in cost, computed on a current basis, between a hot-dip tinplate can and an electrolytic tinplate can.

● **Special Ceiling for Tomatoes by Air**—The ceiling rate for consumer-size packages of tomatoes shipped by plane on an experimental basis may be used for tomatoes shipped by air in wholesale size packages, OPA has ordered. Each tomato shipped in the larger packages must be individually wrapped in a transparent, non-reusable wrapper, plainly marked to show that it was shipped by air so that it can be distinguished from rail-shipped products, which have lower ceilings. This is the first provision for shipment by air of larger than consumer-size packages.

● **New Burlap Distribution Method**—Holders of burlap allocation certificates are now being automatically allocated burlap, under an amendment to Order M-47. Bag manufacturers who received a "sequence 17" burlap allocation certificate for burlap in the last quarter of 1945 were permitted to purchase, for delivery during the current quarter, up to 110% of the quantity of burlap obtained last quarter. Newcomers to the bag field, likewise, were permitted to purchase on the same basis. Revised order eliminates quarterly report of manufacturers.

● **Agriculture Comments on Container Situation**—Bureau of Agricultural Economics has taken cognizance of the container shortage in the following condensation of a report recently issued:

"Shortages in materials for packaging food will continue during 1946... although no serious bottlenecks are expected. Paperboard and tinplate probably will be short during most of the year, and glass containers will continue 'tight' at least during the first quarter.

"Both wrapping paper and paperboard containers will be affected by the threatened drop in pulpwood production in the South. The difficulty here is in replacing war prisoners who were used as pulpwood cutters during the war. Until the labor supply increases, some re-use of paperboard containers may be encouraged.

"Tin-plate will be short until new supplies begin coming in from the Far East, especially the Malay states. The electrolytic method of manufacturing cans, developed during the war, probably will be used more widely because it saves two-thirds of the tin used in regular hot-dip tin plating. Shortage of jars, bottles and other glass containers is expected to continue until facilities increase."

● **Increased Tin Quotas**—How long this country will be able to draw on its stockpile of tin before new shipments start coming in is a question in the minds of many in Washington, since CPA announced its widespread increases in pig tin quotas for the current quarter. The increase means a heavy dip into the Government stockpile, which at the end of 1945 was only about 20,000 tons.

Highlights of the amended tin conservation order (M-43) include:

Collapsible tubes—May now use up to 125% of corresponding quarter of 1944, compared with previous use of 100%.

Tin foil—May use 110% of 1944 quarter, against former permitted use of 80%.

Tin- and terneplate—Now 100% of 1945 quarter against 95% of 1944 quarter.

Tinplate and sheet—Now permitted, 130% of 1945 corresponding quarter, against 100% of 1944 quarter previously.

Solders—Increased to 135% of corresponding 1944 quarter from former permitted use of 100% of that quarter.

Because of the liberalization of the order, CPA promised in announcing it that appellants from its provisions could expect few if any concessions.

● **Fewer Cotton and Osnaburg Bags**—Producers of Class A sheetings and osnaburgs are being required now to set aside only 55% of their production of these fabrics for use in making textile bags. In the last quarter of 1945 the set-aside for this purpose was 66⅔%. In reducing set-aside, CPA said increased production of burlap bags was expected to offset the reduced production from sheetings and osnaburg.

● **Economist Looks into Future of Marketing Farm Products**—Technology has had, and will continue to have, almost as important effects on agriculture as on industry, and one of the chief technological developments which is changing the marketing picture is the development of new types of packaging, according to an article, "Prospective Technological Developments in Marketing," by Dr. F. L. Thomsen, Bureau of Agricultural Economics, in a recent issue of "The Marketing and Transportation Situation" bulletin issued by BAE.

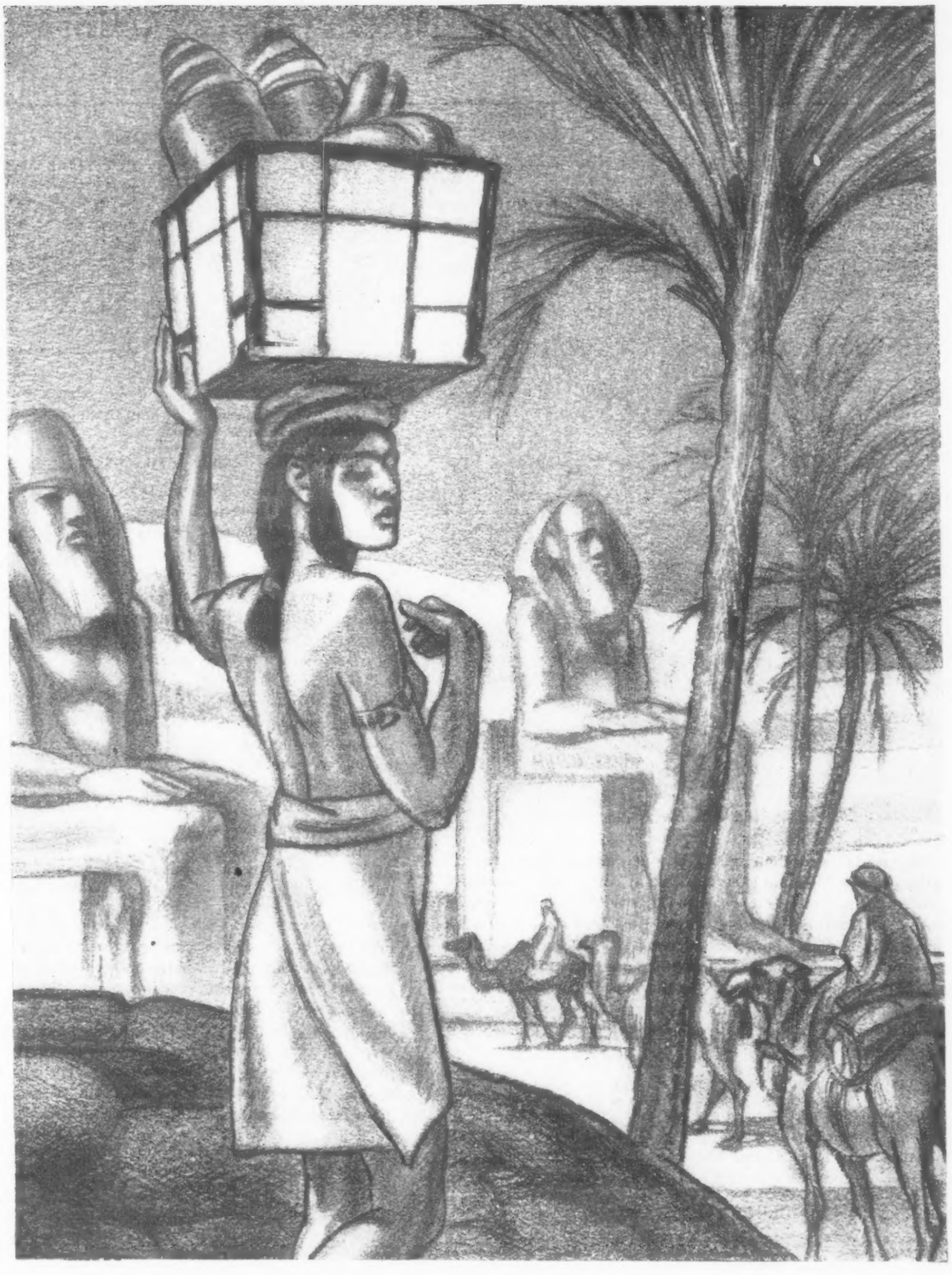
Besides devoting a section of his article strictly to packaging developments, Dr. Thomsen discusses other technological developments under such headings as "Air Transport of Agricultural Perishables," "Frozen Fruits and Vegetables," "Future of the Canning Industry," "Pre-cooked Frozen Foods," "New Ways of Marketing Eggs," "Reduction of Marketing Costs."

● **Paper Allocation Controls Lifted**—CPA officials are still watching effects of the lifting of paper and paperboard allocation controls, as well as insisting that inventory restrictions, retained when allocations were lifted, be observed. Mills still have to set aside 10% of their production for Government and other needs.

● **Agriculture Yearbook to Be Resumed**—The Yearbook of Agriculture, publication of which was suspended during the war, will make its reappearance late in 1946, and will, it is promised, contain chapters on new processing and packaging methods.

● **Box Veneer Prices Up**—OPA officials are watching production of box-grade veneer to see if it reacts as they hoped—that is, increases—as a result of the price increases recently authorized. The Government agency authorized an increase of $11 per 1,000 bd. ft. in the ceiling prices for box-grade veneer, and at the same time tightened the box-grade and commercial veneer price regulations to make clear that the ceiling prices for box grades must be charged in sales of these grades to box makers. In the past, it was pointed out, some veneer manufacturers have been selling box-grade material to box makers at commercial grade prices, which were as much as 50% higher than those permitted for box-grade material. OPA said it did not believe the price change will require any general increase in box prices.

THIS IS NUMBER TWO IN A SERIES ILLUSTRATING THE HISTORY OF PAPERBOARD AND FOLDING CARTONS



PACKAGING IN THE LAND OF THE PHARAOHS

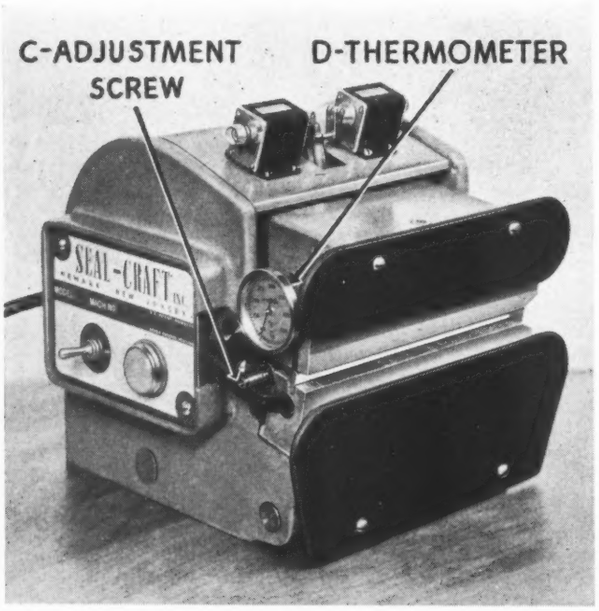
The ancient Egyptians stored and transported many of their goods in lightweight plaster containers held together with straw. • This was long before the secret of making paper and paperboard was discovered, thousands of years before the first folding carton was made. • Although papyrus, the forerunner of paper, was known at the time, it was used principally as a material for writing. • Its high price and brittle quality made papyrus impractical for packaging.

UNITED PAPERBOARD COMPANY, INC.
PAPERBOARD FOLDING CARTONS
285 MADISON AVENUE NEW YORK 17, N. Y.

Equipment and Materials

HYDRAULIC CRIMPER

A new hydraulic crimper designed for sealing thermoplastic materials of all types by Seal-Craft, Inc., Newark, N. J. may be adjusted to the specifications of the material supplier with a combination of heat, dwell and pressure to suit the requirements of each material used. Model A is foot operated. No motor is required. Pressure exerted on the crimp jaws may be increased



or decreased from nothing to 600 lbs. Power is obtained through hydraulic principles and leverage, it is said, with foot pressure no greater than required to release the rachet on motor-driven sealers. By turning a thumb screw, the dwell (length of time during which crimp jaws remain together under full specified pressure) can be gradually increased from a fraction of a second to a high of one-half minute. By thermostat control, the temperature of both crimp jaws may be increased or decreased from 100 to 400 deg. F. Speed depends on the length of dwell and skill of operator.

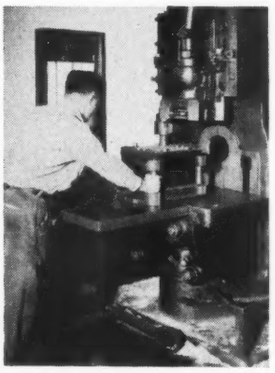
PRESSURE-SENSITIVE TAPE RE-NAMED

"Taypit" is the new name for the retail consumer line of self-sealing transparent, colored and decorative tapes made by International Plastic Corp., Morristown, N. J. Industrial and commercial tapes will continue to be called "Filmonize."

MATERIALS HANDLING EQUIPMENT

A new standardized lift truck, called "Load-Lift," has been developed by Market Forge Co., Everett, Mass. This new model has several new operational features which increase lift truck efficiency—plus several safety features. It utilizes the hydraulic principle in lifting; has sealed ball bearings in the wheels, all-steel wheels, and a platform which remains stationary at any height. Lowering is accomplished by means of a small lever which controls the speed. Interesting safety features are: lifting handle separated from lifting mechanism; sealed hydraulic mechanism. It is limited to two capacities of 3,000 and 5,000 lbs.

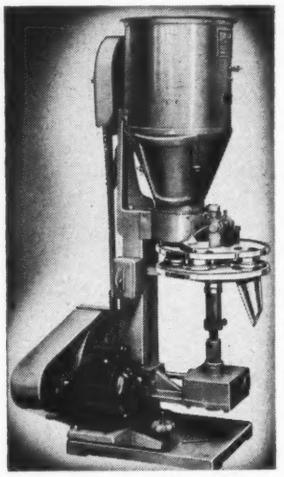
Lewis-Shepard Products, Inc., Watertown, Mass., have incorporated several new features in their Handy Hoister (see photo). The improved model is particularly useful in plants



that require a light but rugged production tool that fits into any process where the lifting and transporting of tools and raw materials is necessary. Among its features are: heavy gauge steel construction of the bracket, backplate and platform; roller bearing sheave on hardened and ground shaft; strong, channel-type uprights; tubular bracing and base members; wheels are roller bearing mounted available in semi-steel, rubber or Celoron.

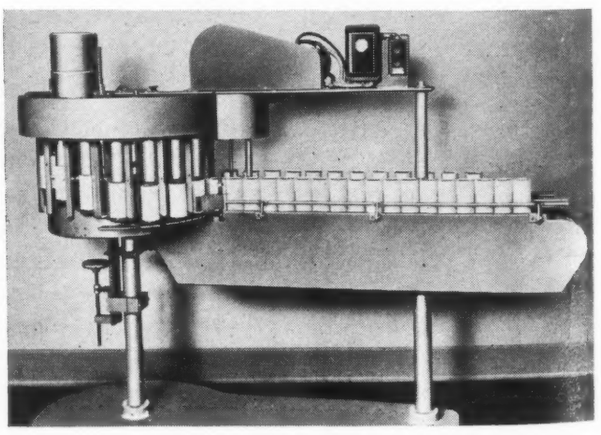
VOLUMETRIC FILLING MACHINES

Triangle Package Machinery Co., Chicago, announces a newly designed volumetric filler (right) for packaging dry products such as nut-meats, ground spices, small candies, and soup mixes. Known as Model P-1, the machine is equipped with an improved, simplified drive mechanism, as well as an adjustable handwheel for regulating filling speeds—ranging from 20 to 50 packages per min. Various size models are available for handling packages from 1/4 oz. to 16 oz. Machine has four easily adjusted measuring chambers which insure accuracy and which are said to make the unit a fast and labor-saving device.



J. L. Ferguson Co., Joliet, Ill., have an improved package filler that employs a telescoping action to avoid waste and dust in the packaging of free and non-free flowing products such as cleansers, flake lye, drain pipe openers, soot removers, etc.

Cylindrical containers, paper and metal cans or rectangular cartons are raised onto the filling tubes of the telescoping volumetric filler, and then lowered in one continuous filling operation. According to the manufacturers, it is this internal, close-contact action that prevents dust and the loss of material. Filler handles up to 100 packages per min.



This book of Better Packaging doesn't actually exist. But if you put all of Pneumatic's packaging experience and knowledge between two covers you would be able to find the one best answer to almost any packaging problem you might meet.

A leader in the field for over fifty years Pneumatic has developed machines to package many different types of products. All of them have been time and production tested, and perfected to a peak of "lower cost per container" operation.

The Hi-Speed Carton Feeder and Bottom Sealer pictured is typical of the Pneumatic equipment being used every day in the better known production lines throughout the nation. Pneumatic builds complete machinery hook-ups for carton feeding, forming, sealing, tucking, weighing, filling, closing, and wrapping at speeds to meet your needs. Write for details; your inquiry will be given immediate and expert attention. Pneumatic Scale Corporation, Ltd., 82 Newport Ave., North Quincy 71, Massachusetts . . . Also branch offices in San Francisco, New York, Chicago, Los Angeles.

PNEUMATIC
PACKAGING AND BOTTLING
MACHINERY

Plants and People

J. C. Jorgensen has been appointed New York manager for **The Dobeckmun Co.** of Cleveland, Ohio, according to **Ennis P. Whitney,** director of sales for the company. Mr. Jorgensen was one of the original salesmen for **Du Pont Cellophane** and for many years held the position of New York sales manager for the cellophane division of the Du Pont company. He will make his headquarters in the Dobeckmun New York office at 500 Fifth Ave., where he will specialize in the sale of printed, converted and laminated films and foils for packaging and industrial uses.

J.C. Jorgensen

The 25-story Pershing Square Bldg., opposite the Grand Central Terminal at 100 E. 42nd St., New York City, has been taken over by the **Continental Can Co.** and will be known as the **Continental Can Building.** Continental offices now located elsewhere in the city will eventually be accommodated in the building, which already houses the head office of the company.

Personnel announcements by the Continental Can include the appointment of **Stewart A. Huge** as manager of production planning; **William B. Tate** as production control manager of the Memphis plant; **Walter F. Reinke** as superintendent and assistant plant manager of the Cameron plant; **H. F. Campbell** as general line district sales manager with headquarters at Atlanta; **Leonard Cannella** and **L. C. Bohs** as assistants to the N. Y. district sales manager; **Robert S. Hatfield** as assistant to the packers' can sales manager of the Eastern district, and **George Dohn** as sales office manager for New York.

All plastics operations of Continental are now located at Cambridge, Ohio. **John A. Benjamin,** formerly sales promotion manager of the paper plant at Van Wert, Ohio, has been appointed acting general manager of the Cambridge plastics division, replacing **J. E. Wolfe,** who resigned.

A new factory building located at 4950 Long Beach Ave., Los Angeles, has been acquired by Continental for the manufacture of a full line of paper products except fibre drums.

The Goodyear Tire and Rubber Co., Akron, announces the creation of a **Chemical Products Division,** with **C. P. Joslyn** as manager; the construction of a $1,000,000 development laboratory for the division, and the construction of a $3,000,000 plant for the conversion of vinyl chloride copolymers and other resins into films, sheets, etc. Announcement has also been made of the appointment of the following returned servicemen: **Dr. James E. Snyder,** to the development department in charge of working on packaging materials, applications and equipment; **J. S. Brewster,** to the Pliofilm department, and **T. D. Strickland, Jr.,** to the Pliofilm department as a specialist in vegetable packaging. **J. B. Post,** food packaging specialist for Goodyear, will be manager of Pliofilm packaging sales for Chicago.

Charles F. Hubbs & Co., of New York has established a **Food Packaging Division** to handle and distribute all types of materials used in the preservation and packaging of perishable foods. The new division will be supervised by **William H. Arthur,** formerly with the **Container Corp. of America,** whose headquarters will be at 389 Lafayette St., New York.

Container Corp. of America, Chicago, announces plans to add a paperboard machine, power plant and necessary buildings to its Fernandina (Fla.) pulp mill. **W. J. Poole,** recently released from Service, has returned as head of the company's line of containers for the locker plant and home freezer cabinets.

Joseph X. Gubbins has been promoted to the post of midwestern sales manager of the **Paterson Parchment Paper Co.** Mr. Gubbins will make his headquarters in the Chicago office.

Lt. Robert de S. Couch, who for three years was attached to the **Subsistence Research & Development Laboratory** of the Chicago Quartermaster Depot, working on the packaging of Army rations, has joined **General Foods Corp.** in New York as chief of the packaging division of General Foods' Central Research Laboratory. Lt. Couch was previously with **Riegel Paper Corp.**

Expansion in foil manufacturing facilities is planned by **Aluminum Co. of America.** The expansion will include installation of equipment in the company's **Alcoa Tennessee works,** the changing of facilities at **New Kensington, Pa.** and the increasing of facilities at **Edgewater, N. J.** These installations will be completed during the latter half of this year. The program will more than double the company's present foil manufacturing capacity.

The Union Bag & Paper Corp., New York, announces the appointment of **Walter Sheldon** as director of the company's board and pulp sales. Recently released from the Navy, Mr. Sheldon served with the WPB before entering the service. The company has also announced plans for enlargement of its bag factory at Savannah, Ga.

The Reynolds Metals Co., of Richmond, Va., announces its acquisition of the world's largest alumina plant at **Hurricane Creek, Ark.,** along with a large aluminum reduction plant at **Jones Mill, Ark.,** estimated to increase the company's alumina production capacity almost eight-fold.

Arthur D. Little, Inc., Cambridge, Mass., industrial research organization, has been engaged by the **Artillery Division of Army Ordnance** to provide research and engineering services for determining the feasibility of large-scale long-term storage of Ordnance equipment. The research program will be headed by **Dr. Charles S. Keevil.**

The B. F. Goodrich Co., of Akron, O., broke ground for a new and complete research center on the occasion of its 75th anniversary. The laboratories will be erected on a 260-acre tract between Akron and Cleveland, and present plans call for the construction of five separate buildings. The company has also announced that construction will soon start on a new modern plant near Marietta, O., for the processing of plastics.

Joseph Young has resigned from **Arvey Corp.,** Jersey City, N. J., as sales manager of the adhesives division, to open his own office at **521 Fifth Ave., New York,** as a consultant on sales promotion, merchandising and packaging.

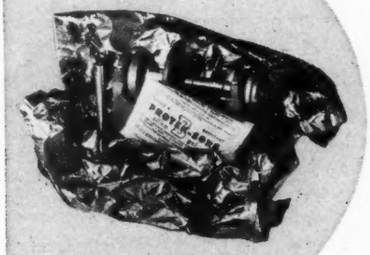
Construction of a new plant for expanded production of displays and other cardboard and Lamcoted products is under way by the Chicago division of **Arvey Corp.,** Jersey City, N. J.

Richard S. Hirschland has been elected to succeed **Guy Steeves,** retiring president of **George V. Clark Co., Inc.,** designers and manufacturers of transparent acetate containers, lithographed cans and metal stampings. The company has moved to larger quarters in **Astoria, L. I., N. Y.**

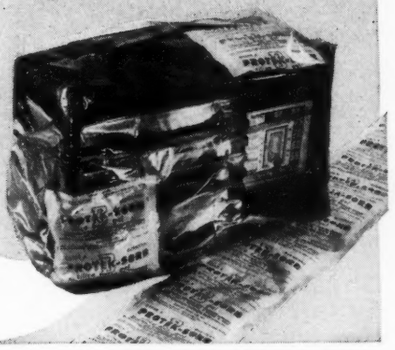
Neil A. Fowler, vice-president of the **General Box Co.,** has been awarded a **Certificate of Appreciation** by the War Dept. in recognition of his services in helping to establish a military packaging technology during the war.

Richard A. Masters has been appointed Los Angeles division manager of **Louis Roesch Co.,** *(Continued on page 176)*

"Prescription Packaging"



DAVISON DEHYDRATED PACKAGING IS PRESCRIBED BY SPECIALISTS FOR THE EXCLUSION OF MILDEW, MOLD, RUST AND CORROSION TO GOODS IN TRANSIT AND INTERIM OR LONG TIME STORAGE.



Davison Field Engineers are available for consultation and direction in all packaging problems involving the hazard of moisture damage. This service costs the manufacturers nothing . . . *LEADS TO TREMENDOUS SAVINGS AND CUSTOMER SATISFACTION.*

Davison Dehydrated Packaging, using the desiccant Protek Sorb* silica gel, can be adapted to specific needs in a practical and economical manner. Consult us without obligation.

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Canadian Exclusive Sales Agents for PROTEK-SORB silica gel • CANADIAN INDUSTRIES LIMITED • General Chemicals Division

For Your Information

William G. MacNaughton, engineer for the **News Print Service Bureau,** New York, will be the 1946 recipient of the gold medal of the **Technical Assn. of the Pulp and Paper Industry,** given for outstanding contributions to the technical advancement of the industry. Presentation will be made during the annual **TAPPI** meeting Feb. 25–28 at the Hotel Commodore, N. Y. Included on the TAPPI program is a session on **"Packaging Materials Testing,"** at 9:30 A.M. Feb. 28, with **W. H. Graebner,** of the **Marathon Corp.,** as chairman.

The **20th Exposition of the Chemical Industries** will be held at **Grand Central Palace,** New York City, **Feb. 25** to **March 2.** This show is held once every two years, and its purpose is to promote relationships between research, industrial organization and production. Some 350 exhibitors will display a wide variety of materials and appliances, covering every phase of processing treatment from the raw material through to the packaged product.

Sessions of the **Sixth Conference of the Institute of Food Technologists,** to be held at the **Statler Hotel, Buffalo, N. Y.,** on **March 18, 19 and 20,** are planned to inform those engaged in the processing, packaging, handling, shipping and storage of food products on technological developments during the war that may be projected into peacetime practice. Frozen foods packaging is on the agenda for one of the afternoon sessions.

Formation of a large-scale producers' association covering the field of consumer packaging of fresh fruits and vegetables on the West Coast has been announced. Known as the **California Cooperative Packaging Assn.,** the group comprises some of the leading independent growers in the state and represents approximately 45,000 carloads of production annually. Officers of the association are **John S. Arena,** president; **G. P. Phillips,** executive vice-president; **Melvin Sanguinetti,** secretary; and **R. S. Thomas,** treasurer. The association's headquarters are in the Hollingsworth Bldg., Los Angeles.

The Paterson Parchment Paper Co., Bristol, Pa., is distributing a booklet entitled **"Heroes All,"** a tribute to the men who won our victories in World War II. Color reproductions of various Service decorations are included in the booklet.

An evening course on **"Dynamics of Package Cushioning"** is being offered by **Dr. Raymond D. Mindlin,** associate professor of civil engineering, at **Columbia University,** New York. Detailed information may be obtained from the Dean of the School of Engineering, 116th St. & Broadway.

The fifth in the series of surveys of postwar markets for setup boxes, **"Hardware, Electrical and Metal Industries,"** has been issued by the **National Paper Box Mfgrs. Assn.**

Fruit and vegetable packagers have evidenced interest in the inauguration of air freight service by **United Air Lines,** Feb. 1. United filed two tariffs—one for general traffic movements and the other a commodity tariff to develop balanced loads. The latter fixed a base rate of 15¢ a ton-mile for transcontinental plane-load shipments of fruit and produce moving from some West Coast growing areas to certain Eastern points.

National Adhesives, division of **National Starch Products, Inc.,** has published a handbook of facts on **"Glued Loads."** Copies may be had from the company at 270 Madison Ave., N. Y.

H. J. Linder was elected president at the 20th annual convention of the **American Veneer Package Assn., Inc.,** held recently in Chicago. **Walter Verhalen, Edwin P. Brown** and **H. M. Smalley** were named vice-presidents; **Robert W. Davis,** secretary-manager and **Mildred L. Davis,** treasurer.

The date of the **National Chemical Exposition,** sponsored by the **American Chemical Society,** has been moved up to **September 10–14, 1946,** at the Chicago Coliseum.

A Shippers Research Division has been organized by the **Air Transport Assn. of America,** 1515 Massachusetts Ave., N. W., Washington, D. C. Of interest is a proposed program for analysis and testing of present packaging regulations with a view to establishing specifications for air transport.

The convenience of buying cleaned and packaged fresh vegetables ready for cooking appeals to 44% of housewives, even though the cost might be higher. Nearly 45% will be interested in buying completely cooked, balanced meals frozen and packaged ready to serve. The use of vacuum-sealed containers for items such as cookies and crackers is favored by 78%. Seventy-five per cent desire to purchase food in serving containers that can be placed on the table.

These are among the findings brought out in the new **Owens-Illinois Glass Co.** color motion picture, **"Mrs. America Speaks on Modern Store Service,"** the premiere of which was held Jan. 22 in New York, Washington, Chicago and San Francisco. The figure are based on a survey made by the **Home Makers Guild of America,** sponsored by Owens-Illinois.

"Glycerine, Its Industrial and Commercial Applications," is the title of a new book by **Georgia Leffingwell, Ph.D.,** editor of *Glycerine Facts* and *Soap Uses in Industry,* and **M. A. Lesser, B.Sc.,** technical editor of *Drug and Cosmetic Industry.* The book is a comprehensive survey of the large number of industrial products which contain glycerin in small or large percentages, and one of its chapters is devoted to the use of glycerin in packaging materials. (Chemical Publishing Co., Inc., 26 Court St., Brooklyn 2, N. Y., $5.00.)

Plans to broaden existing markets and technical advances of waxed paper will be discussed during the annual meeting of the **Waxed Paper Institute, Inc.,** to be held at the **Hotel Pennsylvania, New York, February 28.**

Copies of **"Plastic Packages and Materials"** and **"Set-Up Paper Boxes,"** the first two publications in a series on **"Packaging in World War II"** by the **Packaging Institute, Inc.,** are availble from the Institute's offices at 342 Madison Ave., New York, at $1 per copy.

The Lithographers National Assn., Inc., will meet at the **Marlborough-Blenheim, Atlantic City,** during the week of **May 12 to 18.**

The December 1945 bulletin of the **Lithographic Technical Foundation** contains a complete listing of the Foundation's publications to date, priced individually and in sets. Copies may be obtained from 131 E. 39th St., New York City.

The **"Postwar Meeting"** of the **Folding Paper Box Assn.** will be held at the **Drake Hotel, Chicago,** on **March 13 to 15.** Experts will speak on all phases of folding paper box operations, including machinery, board, ink, costs, sales and other vital matters including problems in the immediate future.

The Bulkley, Dunton Organization, New York, manufacturers of pulp and paper, have published a handsomely bound book entitled **"Papermaking in America,"** which gives a pictorial account of the development of pulp and paper manufacturing in the U. S. from its origin in 1690. Written by **Stephen Goerl** and illustrated (*Continued on page 180*)

WOMEN VOTE 2 to 1 FOR FOODS PACKED IN GLASS!

It's the greatest sales *plus* in the food industry . . . *your customers' preference for food in glass packages!*

The *overwhelming* vote of 2 to 1 or better for foods* packed in glass was established in nation-wide surveys of representative products by a well-known public opinion analyst.**

Here are some of the many reasons why women prefer a glass package . . . why you will sell food faster if it's packed in this modern container:

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A top preference—your customers see what they buy! Food *itself* looks tastier than pictures of food. That's genuine appetite appeal—the strongest buying urge!

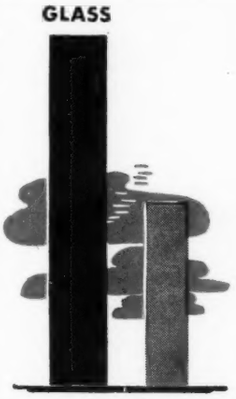
PROTECTION

Glass leaves food flavor alone—adds no taste. Food is cooked in its own sanitary glass container, assuring your customers full, fresh flavor, absolute cleanliness.

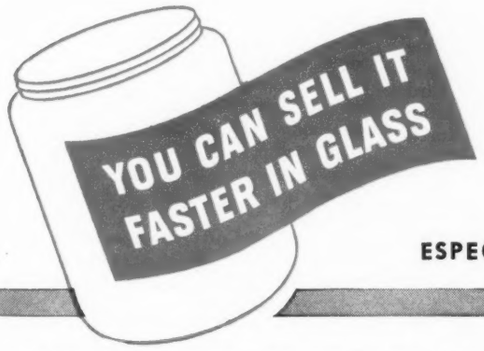
CONVENIENCE

Easy-to-open—easy-to-reseal. Left-overs are safely, compactly stored in original containers. Complete visibility tells your customers when to buy more.

PREFERENCE



Of all women questioned who expressed a container preference, glass was a 2 to 1 or better choice over the second-place container. And this emphatic preference is growing!



Duraglas containers have all the advantages of glass packages *and more.* Their light-weight strength assures easy handling . . . their trim proportions mean compact storing . . . their beauty makes sparkling displays. Their nationally advertised name is respected by consumers.

You sell more . . . need less selling time . . . with food products packed in glass containers—Duraglas Containers!

**Coffee, fruit cocktail, fruit salad, beets, peaches, baby food, food, beverages, salad oil, cooking oil.*

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U. S. patent digest

edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at ten cents each in currency, money order or certified check; postage stamps are not accepted.

Receptacle and Method of Making It, W. J. DeWitt (to Shoe Form Co., Inc., Auburn, N. Y.). U. S. 2,389,601, Nov. 27. A substantially rectangular box having a bottom and spaced parallel sides integrally joined to the bottom and having a pair of like end members of stiff moldable shape-retaining sheet material, each end member having its bottom and side margins so permanently shaped as to provide two parallel flange members.

Condensate Deflector for Bottle Fillers, A. J. Lippold (to Cherry-Burrell Corp., Wilmington, Del.). U. S. 2,389,672, Nov. 27. A bottle-filling machine comprising in combination, a supply reservoir rotatable about a vertical axis, a series of radially disposed bottle filling means having bottle engaging portions and depending from the lower wall of said reservoir and communicating therewith through apertures in said wall adjacent the outer periphery thereof.

Tooth Powder and Paste Dispenser, J. H. Page, Muskegon, Mich. In combination with a container for dentrifice or the like, having a dispensing orifice and a closure member therefor, a positioning member having hinged connection with said closure member, including an extended bearing portion adapted in one position to be folded against the side of said container, and in a second position to be disposed at a predetermined angular relation remote from said dispensing orifice, and adapted to be positioned in registering flatwise engagement with the handle of a tooth brush.

Carton, R. V. Rosen (to J. Makowsky Corp., New York, N. Y.). U. S. 2,389,703, Nov. 27. In a carton formed from a single sheet of material, a front wall having a slot therein, side walls articulated at each end of the front wall, side top walls articulated at the tops of the side walls and extending inwardly, inner side walls articulated at the inner sides of the top side walls extending downwardly, with brace members.

Envelope, W. E. Swift (to United States Envelope Co., Springfield, Mass.). U. S. 2,389,748, Nov. 27. An envelope having a pocket portion and a slotted closure flap, said pocket portion having a front wall and a rear wall, the latter comprising two opposite side flaps and a bottom flap, said three flaps being folded inwardly and adhesively connected to each other in mutual overlapping areas.

Container Closure, A. Burgeni, East Orange, N. J. U. S. 2,389,761, Nov. 27. A container sealing member consisting of a resiliently rigid cellular regenerated cellulose structure, the cells of which are non-communicating, suitably shaped to engage and seal the opening of a container.

Cutting and Counting Machine, G. J. Kennedy (to Radio Corp. of America, a Corporation of Delaware). U. S. 2,389,783, Nov. 27. An apparatus for measuring, cutting and counting metal strip.

Container, J. E. Borah, Penn Township, St. Joseph County, Ind. U. S. 2,389,890, Nov. 27. A container comprising at least three panels interconnected in a unit and shiftable about parallel axes between operative and flate positions, and cleats are secured to the ends of two normally opposed panels.

Feed Mechanism, C. Paulsen (to New Era Mfg. Co., Paterson, N. J.). U. S. 2,389,929, Nov. 27. A feed mechanism for advancing a web of material comprising means for intermittently advancing.

Bottle Carrier, A. Wesselman, Cincinnati, Ohio. U. S. 2,390,020, Nov. 27. A carrier comprising a continuous sheet material body member having transverse score lines for providing a base having a median score line, and upwardly converging side walls, a central partition member aligned with said median score line and having an opening formed therein.

Infusion Package Manufacture, L. Barnett (to National Urn Bag Co., Inc., Long Island City, N. Y.). U. S. 2,390,071, Dec. 4. An infusion package manufacturing apparatus comprising means for feeding a traveling filter sheet layer web continuously therethrough, means for perforating said web at spaced distances therealong, means for depositing and "partially fusing" a thermosetting lamina in configuration to form successive pockets on the moving web in a fixed aligned relation with respect to the web perforations.

Method of Producing a Potential Opening in a Fibre Container or Other Fibre Articles, R. G. Beaton (to American Can Co., New York, N. Y.). U. S. 2,390,072, Dec. 4. A method of forming a potential opening in an imperforate wall section of a fibre article which comprises subjecting a localized area of said wall section to high pressure to compress and compact the material within the localized areas so as to break down and displace the fibrous structure of the materials into a weakened reduced thickness area of hard brittle substance capable of disintegrating into a granular condition when punctured to thereby provide an opening having a clean cut edge in said wall section.

Printing Inks, F. J. Jeuck & C. A. Rietz (to Interchemical Corp., New York, N. Y.). U. S. 2,390,102, Dec. 4. A typographic printing ink characterized by press stability under humid conditions, combined with the ability to be set by the addition of water to the film of the ink, comprising essentially a solution of petroleum hydrocarbon insoluble resin derived from pine wood in a water soluble polyglycol.

Packaging Machine, F. W. Kucklinsky (to Esther M. Kucklinsky, Montclair, N. J.). U. S. 2,390,107, Dec. 4. In a machine for closing and sealing a rectangular carton having a closure flap extending from each of the four sides of the carton, a conveyor or carrier on which a carton is placed with three of the flaps manually folded in substantially the positions they will occupy in the completed closure, a pair of glue applying rollers whereby glue is applied to both sides.

Coating Machine, J. H. Murch (to American Can Co., New York, N. Y.). U. S. 2,390,118, Dec. 4. In a machine for coating fibre containers with liquid paraffin wax and the like, the combination of a plurality of head members arranged in positions for completely surrounding a freshly coated container.

Printing Inks and Vehicle Therefor, C. A. Rietz & F. J. Jeuck (to Interchemical Corp., New York, N. Y.). U. S. 2,390,123, Dec. 4. A typographic printing vehicle comprising a solution of a resin in a solvent therefor.

Receptacle Closure, S. Blackman, Brooklyn, N. Y. U. S. 2,390,291, Dec. 4. A self-form-maintaining receptacle closure which is adapted to be screwed on a receptacle having a threaded neck, said closure comprising a crown, a rim having a screw thread formed therein which is adapted to engage the threaded neck, an integral self-form-maintaining deformable portion depending from an edge portion of the rim.

Package, W. H. Bodle, Birmingham, Mich. U. S. 2,390,350, Dec. 4. A multiple package for merchandise items comprising a plurality of items provided with individual coverings, means joining said items together in side by side relation into a flap group which is substantially self sustaining.

Heat Drying Printing Inks and Vehicles Therefor, C. A. Rietz & F. J. Jeuck (to Interchemical Corp., New York, N. Y.). U. S. 2,390,390, Dec. 4. A vehicle useful in the preparation of printing inks adapted to be dried by heating films thereof to temperatures of the order of 200–240 deg. F., comprising solution of a resin in a solvent therefor.

Carton and Carton Blank, Arthur Rous, New York, N. Y. U. S. 2,390,392, Dec. 4. A carton blank which has a longitudinal axis, said blank having body walls which are bendable, relative to each other along longitudinal hinge lines to provide the body walls of the body of the assembled carton, one of said body walls being a closure-supporting wall, said closure-supporting wall having a free edge.

Dispensing Container for Roll Paper, C. H. N. R. Wills (to Appleford Paper Products, Ltd., Hamilton, Ontario, Canada). U. S. 2,390,407, Dec. 4. A dispensing container for roll paper fabricated from a single blank of sheet material to form a box having a front wall, a back

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wall, a top wall, a bottom wall, and two end walls, said box provided with a passageway between the bottom margin of the front wall and the front margin of the bottom wall through which paper may be withdrawn from the roll and severed against a margin of one of said walls.

Carton, A. H. Axberg, Bayside, N. Y. U. S. 2,390,412, Dec. 4. A carton comprising a front panel, a rear panel, a pair of side panels, a pair of side flaps hingedly secured to said panels, a rear flap hingedly secured to said rear panel, a tuck-in tab hingedly secured to the free end of said flap.

Apparatus for Filling Containers, R. B. McKinnis, Winter Haven, Fla. U. S. 2,390,443, Dec. 4. An apparatus for filling open containers with a desired amount of liquid comprising a source of the liquid, a stationary nozzle in communication with the source and terminating above the upper end of the containers for discharging the liquid downwardly into the container, with valve for controlling flow of liquid from its source to the nozzle.

Dispenser, W. C. Moeller (to A. F. Parmalle, doing business as United States Safety Service Co., Kansas City, Mo.). U. S. 2,390,448, Dec. 4. A dispenser comprising in combination a pair of telescoped sections providing a magazine for articles to be dispensed, registering notches in adjacent ends of the sections; and unitary means for feeding the articles from the magazine through portions of said notches.

Talcum Powder Stick, R. W. Teichner (to Remington Rand Inc., Buffalo, N. Y.). U. S. 2,390,473, Dec. 4. A talcum powder stick, comprising a bar of talcum powder compressed into a condition where it is friable without a retaining coating, said stick attached to a handle, and said coating being formed of material which wears away when bar is rubbed over a skin surface to apply a powder coating thereto.

Method of Making Tapered Pails, J. A. Pittner (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,390,553, Dec. 11. The method which comprises rolling a blank of sheet material to cylindrical form with the ends of the blank overlapping, welding said overlapping ends together to form a seam extending lengthwise of the cylinder, curling a portion of the rim of the cylinder which extends across the seam at one end of the cylinder.

Sealing Container, J. P. Staples (Pittsburgh Corning Corp., Allegheny County, Pa.). U. S. 2,390,561, Dec. 11. The combination comprising a glass container formed with a tubular mouth element having a set of screw threads, a closure element for the mouth element, the closure element having a set of screw threads mating with the threads of the mouth element, one element constituting an internal part, the other an external part, the internal part being sufficiently smaller than the external part to leave a space between contiguous surfaces of the two, a sealing layer of cellular plastic containing about 30 to 75% of voids bonded to one of the sets of screw threads and being non-adherent with respect to the other set.

Nonmetallic Ferrule for Caps of Containers, F. Mallgraf, Little Neck, N. Y. U. S. 2,390,721, Dec. 11. A non-metallic cap for containers comprising a three-layer ferrule member having two inner layers and an outer layer and being formed from a tape-like strip of paperboard having laterally spaced thread portions pressed in one end of said strip with flat surfaces between said thread portions.

Bottle Closure Retainer, W. W. Mays, Steelton, Pa. U. S. 2,390,724, Dec. 11. The combination with a bottle neck having an external bead and a stopper: cover members; a support embracing the bottle neck to which support said members are hinged, and having bottle neck gripper carried by said support.

Pouring Spout for Paper Bags and the Like, C. Wren, Toronto, Ontario, Canada. U. S. 2,390,822, Dec. 11. In a bag having a sealed end, front and rear walls, the latter being longitudinally foldable to collapse the bag, a pouring spout structure comprising a tearing tab disposed in said sealed end wall centrally thereof and defined by a weakened line.

Closure for Containers, A. Limbach, Carmel, N. Y. U. S. 2,390,889, Dec. 11. A device comprising an annular band having re-entrant shoulders and an offset portion containing an aperture, a slider having conversing flanges engaging said shoulder to mount said slider on said band for to and fro movement, a pair of cuts at one end of said slider forming a resilient tongue, a strip of sealing material arranged on the inner surface of the slider over its entire length, and equipped with tabs.

Package and Method of Packing, C. J. Schmid (to Julius Schmid, Inc., New York, N. Y.). U. S. 2,390,900, Dec. 11. The method of packing a tenacious thin film article of substantially cup shape, which comprises first the step of rolling the article upon itself in successive peripheral folds from its open end to its closed end to form a circular ring of high resilient resistant to radial distortion.

Carton, J. A. Zinn, Jr., Belmont, Mass. U. S. 2,390,909, Dec. 11. A carton comprising a rectangular body portion having four side walls each shaped to taper downwardly, two opposed side walls being provided with rectangular-shaped bottom flaps folded and adhesively secured together at their contacting interface surfaces in overlapping relation.

Dispensing Container, B. W. Kleinberg (to Guenther A. Frank doing business as Lapelle Co., New York, N. Y.). U. S. 2,390,945, Dec. 11. A dispensing container comprising a casing having two oppositely disposed openings therein, two compartment members disposed within the casing adjacent said openings, each of said members being pivotally mounted on at least one side wall of the casing at a point in the region of the adjacent opening and near the base of the member a flexible button connecting the lower portion of said members.

Prophylactic Package, F. G. Karg, Chicago, Ill. U. S. 2,391,094, Dec. 18. In a prophylactic package, an envelope of transparent non-metallic film material, a surgical appliance strapped in a compressed state so as to occupy only a part of the interior of said envelope, and a separate container of antiseptic substance occupying the other part of the interior of the envelope.

Container and Closure Therefor, F. J. Williams & M. Kaplan (Williams assigned to National Lead Co., New York, N. Y.). U. S. 2,391,212, Dec. 18. A shipping container for high gravity materials comprising a tubular body composed of paper-like stock devoid of any interior shelf or shoulder, a two-diameter rigid lid of like material applied to such body with its part of smaller diameter inserted into and frictionally bearing against the interior surface of the body.

Closure Means for Fibre Containers, J. Coyle (to Continental Can Co., New York, N. Y.). U. S. 2,391,296, Dec. 18. A fibre container having an end closure disk provided with an opening therethrough, an eyelet secured to said disk in this opening, a cup-shaped plug adapted to be placed in said eyelet for closing and sealing the container.

Dispensing Container for Sterile Compresses, M. McI. Dukehart, Jr. (to Continental Can Co., New York, N. Y.). U. S. 2,391,301, Dec. 18. A compress or like flexible element dispensing container comprising an elongated rectangular casing having wall portions defining a compress element pack enclosing chamber, two of said wall portions opposing each other.

Container Vacuumizing and Closing Machine, A. L. Kronquest (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,391,319, Dec. 18. In a machine of this type, a casing open at its bottom and forming a filled container vacuumizing chamber therein, container sealing means in said chamber including a chuck and seaming mechanism.

Paper Container Structure and End Closure Therefor, J. H. O'Neil (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,391,337, Dec. 18. A fibre container comprising a cylindrical open end body member, a bottom end attached to said body member and a top end closure for said body member including a collar glued to the outer face of the body member and projecting above the end thereof, a cup-shaped member inserted in said collar and dimensioned so as to extend over the end of the body wall and contact with the inner face of the collar, and equipped with a reinforcing disk disposed within said cup-shaped member.

Crown Capped Container, W. F. Punte (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,391,346, Dec. 18. A container comprising a rectangular body with rounded corners and having a bottom, walls extending uprightly smoothly and without interruption from the bottom to the upper extremity thereof and defining a large filler opening at said upper extremity, said upper extremity terminating in a horizontally flattened outwardly directed stiffener bead of uniform thickness throughout the circumference.

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Harry H. Replogle retires

Harry H. Replogle, who has directed sales of Sylvania Cellophane since the company was organized, from now on will devote the major part of his time to supervising the activities of his Westchester farm. Although he will continue as a director and as consultant, he is retiring from service as senior vice-president.

Mr. Replogle was one of the group gotten together by Dr. Roger N. Wallach in 1929 to operate the Sylvania Industrial Corp., which started from zero as the great depression was born, using a process for regenerated cellulose film developed in Belgium. Many of the original group had been associated with Dr. Wallach in the Grasselli chemical organization. The new company broke ground for the plant at Fredericksburg, Va., just before the 1929 crash. During the depression years the company grew to a position of importance in the packaging field.

Seated in the post of sales director, Mr. Replogle got the full impact of competitive struggles.

Regenerated cellulose products, manufactured under the French process, were already firmly entrenched in the United States when Sylvania entered the field with the Belgian process. The two differ technically and mechanically, but the finished products are indistinguishable to the average person.

Mr. Replogle was in the center of one of the most famous legal struggles of the past few decades concerned with the use of trade names. Because of the similarity of the Belgian product with that produced by the French process, users would call for "Cellophane" instead of "Sylphrap," although the Sylvania Corp., declares Mr. Replogle, maintained the policy of using only its own registered trade name. Suit was brought against one of Sylvania's customers, and again against Sylvania, to enjoin them from using the name "Cellophane." It was carried eventually to the Supreme Court of the United States. That Court, by denying an appeal from the decision of the Circuit Court of Appeals, established the principle that the word cellophane in itself is a generic term.

In strong contrast with the desire of the public for these materials for visible and decorative packaging, Mr. Replogle points to the opposition encountered in earliest days from printers and other converters. Many of these regarded cellophane as too much of a passing novelty. Consequently, as sales manager, he was quick to see the need for technical and advisory service capable of teaching new uses for the material and showing converters how to handle it. As an incidental result of this service, a healthy diversification of uses and users developed.

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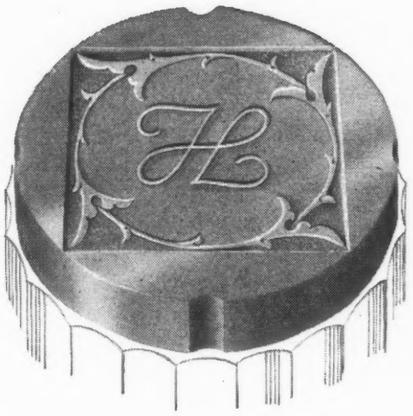
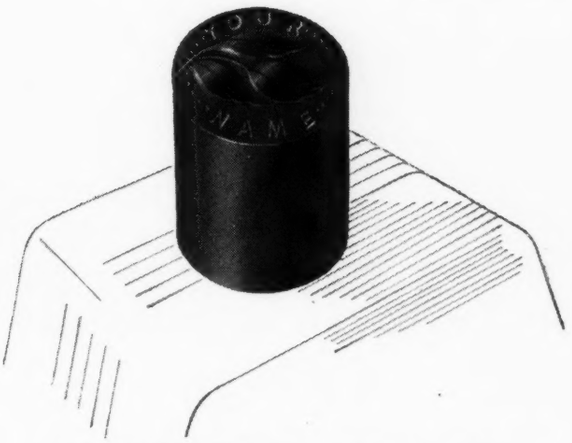
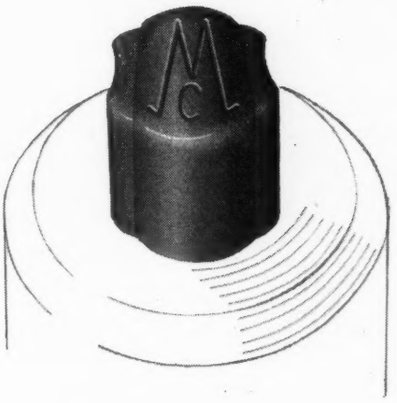


INTAGLIO MONOGRAM, set in decorative frame of your own choice, is one of many Artmold design possibilities that add distinguishing new beauty to your package.



YOUR DECORATIVE motif, or trade-mark, with your brand name depressed and filled in with eye-catching color, gives your package sales-building individuality.

GRACEFUL raised design topped by your monogram makes package look taller, gives that touch of extra style and distinction that builds customer recognition.



FINGER-GRIP cap shape is only one of many individualized design possibilities available in Artmold Caps to lend glamour to your "luxury trade" packages.

ARMSTRONG'S *Artmold* PLASTIC **CAPS**

YOUR PACKAGES NEED every bit of extra style and distinction you can give them if they're going to compete successfully in today's markets. Give them a head start with Armstrong's Artmold Caps. For free design suggestions, send a sample or drawing of your package to Armstrong Cork Company, Glass and Closure Div., 5902 Prince Street, Lancaster, Pennsylvania.

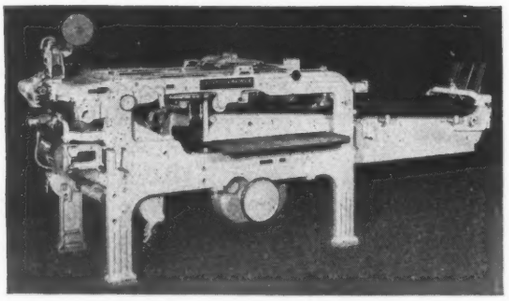
for SIZE RANGE

The "Oliver" Automatic Wrapping Machine is most versatile! It is made in five different size ranges. In the aggregate they will handle packages as long as 14¾ inches, as wide as 8½ inches, as high as 5¼ inches; and as short as 3⅛ inches, as narrow as 3 inches, as low as 1 inch, and even thinner. Moreover, the size range of each model is based on careful research and planning, even to the overlapping of capacities. Frequently one or two "Oliver" machines in the packaging department can handle all the packages.

and QUICK CHANGE

On the "Oliver" you can make a complete change for package size in two minutes. And in another two minutes you can change and thread the roll of "Oliver" Roll-Type Thermoplastic Labels. You can change from endfold to underfold at the flick of the finger. *Consider the time these quick, simple adjustments will save you every day!*

choose the "OLIVER"



"OLIVER" VARIETY WRAPPING MACHINE

Wraps cartons, trays, U-boards or flat cards in cellophane, wax and other heat-sealing materials. Available with 6-foot, 9-foot, or 12-foot infeed conveyor. Automatically folds and feeds U-boards and flat cards. Automatically codes cardboards, cartons, labels. Imprints essential information on label just before it is heat-sealed to wrapper. Photo-electric registration of printed wrappers.

Write for Complete Information

OLIVER MACHINERY COMPANY, GRAND RAPIDS 2, MICH.

"OLIVER"

AUTOMATIC VARIETY WRAPPING MACHINE

The laundry . . .

(*Continued from page 95*) Carolyn Laundry, New York City, whose packaging scheme was reported soon after its adoption in 1941.* While it is true that the program was severely cut back due to war shortages, the principles were preserved and the management is committed to distinctive packaging as a definitely profitable investment; they will resume all features just as soon as the availability situation permits. Keynote of their scheme is a clean-looking blue and white design applied to trucks, stationery, billheads as well as the many forms of packaging which this company has used and will use again.

To the average person who is at all package conscious, the situation disclosed by this "sampling" survey seems to present an opportunity which has hitherto not been fully appreciated. But if the foregoing findings are a reliable indication, the laundries will prove to be receptive to ideas for improving their packaging.

At the moment, of course, it might be difficult for most laundries to find package suppliers who are able and willing to take on any new business; but it is safe to predict that when conditions become more settled the laundry field will be ready to take the forward steps in packaging that will help to put this service on a higher level.

* MODERN PACKAGING, November, 1941, p. 48.

Non-woven textiles . . .

(*Continued from page 105*) consisting of an outer layer of starched crinoline* laminated to an inner layer of highly absorbent cloth (Fig. 12). The top of the bag is then dipped thoroughly in a special wax which readily penetrates the crinoline and is absorbed by the inner layer of cloth.

It is absolutely necessary that this cloth be a very efficient absorbing medium, since the success of the closure depends on concentrating an abundance of wax in the sewing holes and permitting the wax to penetrate all the plies of the multi-wall bag, thus effecting a complete ply-by-ply seal. Further, it is desirable that the inner cloth be as "fuzzy" as possible, so that the fibres will grip the outside of the bag tube through the wax and give very strong adhesion.

A wax-absorbing medium

Double-napped outing flannel was first used as the wax-absorbing medium in this closure, but when Masslinn came along it was tested, found superior and quickly adopted for this use—at a substantial saving in cost.

Masslinn is, of course, more absorbent because raw

* See "Crinoline—1944 Style of Bag Closures," MODERN PACKAGING, Oct. 1944 ,p. 114.

WIRZ Collapsible Metal Tubes *match your markets' demands* for attractive, protected, convenient packages . . .

The highly competitive markets ahead make an attractive, well-protected, convenient package imperative . . . especially if your product is a liquid, cream, paste or powder. You can be sure your package embodies all these advantages if it is a WIRZ Collapsible Metal Tube.

WIRZ Collapsible Metal Tubes are protection-convenience packages. They are carefully designed with—

1. Sound, even walls to keep your product free from contamination, atmospheric action, damage in transit and use.
2. Proper self-dispensing shape for convenience and economy.
3. Smooth, even finish, takes colorful inks to enhance the appeal of your product and make it easy to remember.

Let us help you plan a package that increases eye-appeal, protects your product and adds convenience . . . a package that matches your markets' demands.

A. H. WIRZ, INC.

Established 1836 . . . . . Fourth & Cole Streets

CHESTER, PA.

Export Division—751 Drexel Building, Philadelphia 6, Pa.

NEW YORK 17, N. Y. 50 E. 42nd St.

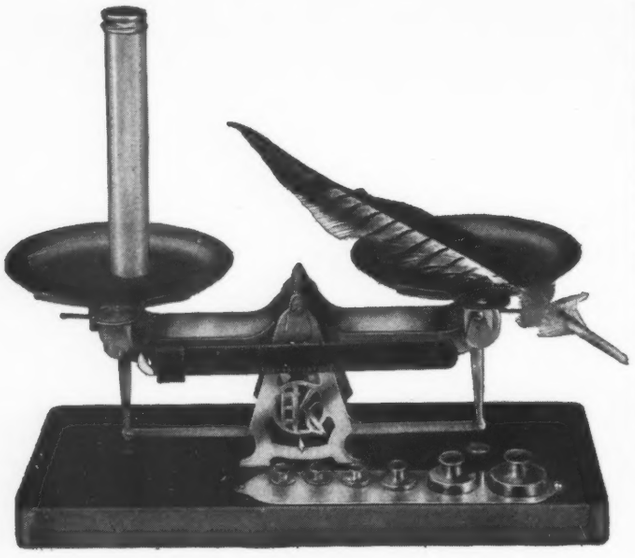
CHICAGO 4, ILL. 80 E. Jackson Blvd.

MEMPHIS 2, TENN. Wurzburg Bros.

HAVANA, CUBA Roberto Ortiz Planos

1709 W. 8th St., LOS ANGELES 14, CALIF. and DANVILLE, CALIF.

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westito Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding



Light as a Feather but heavy on Production

Another reason for packaging in LUSTEROID Vials and Tubes

If you have never tried crystal-clear LUSTEROID packaging, you'll be surprised at the combination of advantages these modern plastic containers give you.

They're light as a feather which means economies in handling and shipping—savings that can well cover the cost of your LUSTEROID packaging program.

Yet LUSTEROID vials and tubes are rigid, strong, unbreakable—the ideal protection for your product in shipment, on the shelf and in use.

This is just part of the LUSTEROID story. It will pay you to get the complete facts today.

Sizes from ¼" to 1¼" in diameter and lengths up to 6". Cork, slip-on or screw-cap closures.

LUSTEROID CONTAINER CO., Inc.
Formerly Lusteroid Division of Sillcocks-Miller Company

Office and Factory
10 W. PARKER AVENUE, MAPLEWOOD, N. J.
MAILING ADDRESS: SOUTH ORANGE, N. J.

cotton fibres are not spun or woven but lie perfectly loose between the narrow cross stripes of binding plastic. For the same reason, the fibres are free to penetrate the wax seal and reinforce it in the same way that steel rods reinforce concrete.

The Masslinn is laminated to the crinoline with a water-soluble adhesive which is not water-soluble, however, once it is set.

Future possibilities

During the war years the non-woven fabrics had very limited production and the available supply was taken for a few essential uses. The entire production of Webril, for example, was allocated to silica gel bags. Other non-woven types went to essential non-packaging applications. Thus the packaging possibilities have scarcely been explored.

The applications cited above may lead to other uses along similar lines. The Webril and Bonnlinn types of material will be useful wherever a siftproof package is desired that will be completely permeable to air or to dispersion in liquids.

It is suggested, for instance, that a heat-sealed non-woven cloth packet similar to that used for silica gel might well be used for laundry bluing. The Masslinn type of material may find many other uses in which its soft fibrous construction and absorptive qualities will be valuable.

General purpose bags

If current development toward a method of cross-laying fibres to give greater strength is successful, it is possible that the non-woven textiles will provide a new and cheaper material for general-purpose textile bags. Whereas previously the great natural strength of cotton fibres could be utilized only by spinning and weaving, it is now possible with plastic materials to achieve a firmly anchored network of cotton fibres simply by means of lamination.

CREDITS: *"Webril" by Kendall Mills, Walpole, Mass. "Bonnlinn" and "Masslinn" by Chicopee Mills, Milltown, N. J. Duplex tea-bagging machine (Fig. 6) by Pneumatic Scale Corp., Ltd., North Quincy, Mass. "Transwrap" machines (Figs. 7 and 10) by Stokes & Smith Co., Philadelphia. Printing ink for "Admiration" tea bag developed and printing done by Milprint, Inc., Milwaukee. "Aquatex" closure by Bemis Bro. Bag Co., East Pepperell, Mass.*

Well dressed birds . . .

(*Continued from page 124*) in anticipation of the coming era of aerial delivery. So far air shipments are quite expensive and hence advisable only for gifts or special occasions.

Deejay Farms have done considerable gift packaging in large quantities for business firms, which wanted turkeys as presents for each of their employees. One such firm last Christmas ordered 2,300 turkeys. Every one was individually cellophane wrapped, tied with

She's been right-on-the-job for the boys over seas....now she'll make HEEKIN CANS for the home folks

EVERYONE in the big Heekin organization salutes the women who stepped into the breach and produced the many war items in the Heekin factories . . . from bullets to ammunition boxes. These same experienced women are ready to take over the production of peacetime metal packages . . . in all shapes and sizes . . . in all colors. If you manufacture anything that goes into a metal package . . . and you know that metal packages carry your products safer and without loss . . . why not let one of us here at Heekin talk over your packaging problems? No inquiry too large . . . no inquiry too small . . . and no obligation.

Specialists in Metal Packaging

ANY SHAPE · ANY SIZE · ANY COLOR · ANY QUANTITY

Heekin Cans

THE HEEKIN CAN CO., CINCINNATI 2, OHIO

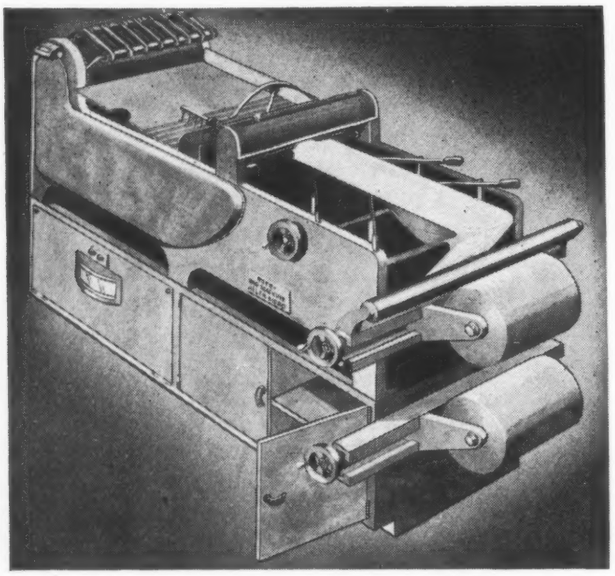
ROTO BAG MACHINE

handles

CELLOPHANE • DIAPHANE • MARALUX

or any heat-seal coated paper

FLAT--SQUARE BAGS



HEAT

ELECTRONICALLY CONTROLLED

PRECISE CONTROL PROVED BY THE USE OF WHEELCO ELECTRONIC PRINCIPLE PYROMETER

ALLEN-MEAD

P. H. Diffenbaugh
Direct Factory Representative
55 E. Washington St.
Chicago, Illinois
Phone: State 1100

Home Office
222 So. San Pedro St.
Los Angeles, Calif.
Phone: TU 7649

DESIGNERS AND BUILDERS OF SPECIAL EQUIPMENT

ribbon and placed in its own corrugated container.

The president of the company wrote on arrival of the turkeys:

"These turkeys arrived on scheduled date, December 22, in two refrigerator cars and were presented to each of our plant employees as a Christmas gift within the next 48 hours.

"Without exception the individual turkey was perfectly wrapped in cellophane, the individual box was not damaged in any way whatsoever and we felt quite pleased at the appearance of the bird and the container when they arrived.

"The day following Christmas many of our department heads and superintendents lost almost the entire day's work because of the desire on the part of employees to thank them for the delicious gift and to explain to them in detail exactly how it tasted when the 'Missus' had prepared it."

So far Deejay Farms have done no advertising except by word of mouth and through the package. As they expand, they may eventually go into radio locally, but Mr. Joseph is a firm believer in the use of an attractive package to retain old business as well as to win new markets.

And he believes the attractive package is particularly important for an operation which deals in a specialty field, not only for gift items, but for year-round selling in the better outlets.

CREDITS: *Labels, Dennison Mfg. Co., Framingham, Mass. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Weight tabs, John P. Weber, Cincinnati. Corrugated boxes, Inland Container Co., Midland, Ohio. Vegetable Parchment and ribbon ties, Chatfield Paper Co., Cincinnati. Folding boxes, Dayton Folding Box Co., Cincinnati.*

Packaging display . . .

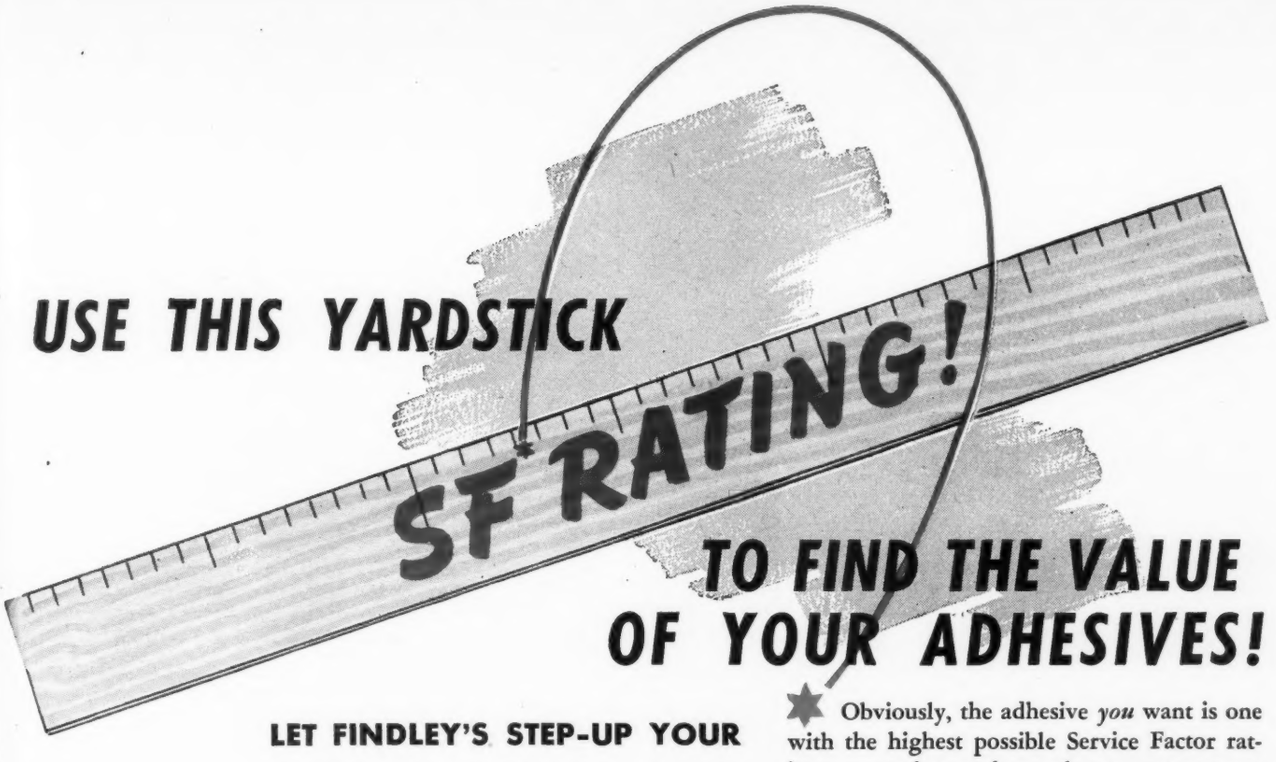
(*Continued from page 121*) had a good time and you made a sale.

There were, however, some further reactions to this visit. The little woman issued an ultimatum. If you intended to make a habit of bringing important customers home, the dining room would have to be repapered. You would have to buy modern fixtures for the bathroom and for goodness' sake have that old easy chair reupholstered.

Just substitute the plant for the home. Invite the public inside—or let it peak through the window—and a good housekeeping program automatically will get under way. Like actors on the stage, the workers will be very much aware of and work to improve their personal appearance.

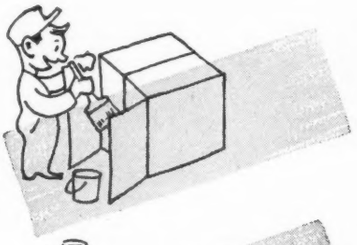
As for the owner himself, he will be under pressure from plant personnel and public alike. He will insist on the most modern and economical equipment and machinery and be eager to have people come in and "see us make it."

USE THIS YARDSTICK



TO FIND THE VALUE OF YOUR ADHESIVES!

LET FINDLEY'S STEP-UP YOUR ADHESIVE SERVICE FACTOR

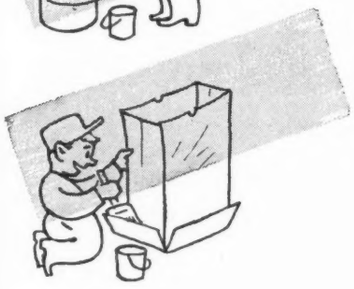


● PACKAGING

There's a Findley Adhesive for every packaging purpose: Sealing of shipping containers, cartons and bags, wrapping of cartons and individual units.

● LABELING

Findley's adhesives will solve your problems: Formulated for use on glass, fibre, metal, wood and transparent films. Adapted to both high speed machine and hand application.



● PAPER CONVERTING

Findley's Adhesives are designed to meet your requirements in all fabricating operations: Laminating, combining and mounting; and manufacture of cartons, bags, tubes, cans, envelopes and specialities.

★ Obviously, the adhesive *you* want is one with the highest possible Service Factor rating — one that performs the greatest amount of useful work in terms of continuous, dependable production . . . one that minimizes and eliminates losses from rejects, slowdowns and shutdowns of the production line due to adhesive failures.

Findley's Industrial Adhesives are formulated with the Service Factor as a guide. They are first tested in our own laboratory for performance and dependability under the conditions they may be expected to encounter in your own plant. That's why every pound or gallon or drum of adhesive that leaves the Findley plant carries the maximum SF Rating.

FINDLEY'S TECHNICAL SERVICE

Our technical facilities and personnel are available and ready to make *your* problem *our* problem until a satisfactory solution is found. If a specially compounded adhesive is indicated, it will be specifically formulated to meet your requirements.

The F. G. FINDLEY COMPANY

3045 W. PEMBERTON AVENUE
MILWAUKEE 10, WISCONSIN

Findley's
INDUSTRIAL ADHESIVES
Exclusively

ROSE

Candy

Machines

Approved by Leading Confectioners

ROSE ALBION FLYER — To form, cut and twist-wrap squares, oblongs, or popular rolls — for Hard Candy, Toffee, Kisses, Nougats, etc. **Capacity** — 500 pieces per minute.

ROSE EAGLE — To form, cut and fold-wrap plastics, Caramels, Fudge, etc. **Capacity** — 500 pieces per minute.

ROSE TRIUMPH — To form, cut and twist-wrap fancy-centered pieces, squares, oblongs, or popular rolls—for Hard Candy, Toffee and other plastics. **Capacity** — 500 pieces per minute.

ROSE I.S.T. — To twist-wrap preformed pieces of any irregular shape or size. **Capacity** — Up to 160 pieces per minute.

ROSE HORIZONTAL AUTOMATIC BATCH ROLLER — Automatic spinner and feeder for use with Albion Flyer, Eagle, and Triumph — for plastic materials only.

OTHER ROSE WRAPPERS — For special types of candies — twist-wraps, fold-wraps, or bunch-wraps.

★ ★ ★

FOR COMPLETE INFORMATION WRITE TO

ROSE CANDY MACHINERY DIVISION

AMERICAN MACHINE & FOUNDRY CO. 511 FIFTH AVENUE NEW YORK 17, N.Y.

Fluorescent tube packs

Some time ago, Sylvania Electric Products, Inc., introduced a "Handy-5 Pack" of molded pulp for electric light bulbs (MODERN PACKAGING, May 1945, p. 109) which met with such immediate success with both the retailer and the consumer that a project was started to package the easily broken fluorescent light tubes in a similar manner.

The molded pulp pack finally decided upon, folds over the ends of the tubes and is so constructed that when stacked, the protective packs on the end of each layer interlock with the packs holding the layer above and below to prevent slipping either lengthwise or crosswise. Each tube is firmly and individually anchored in place. No fillers or pads are needed to protect the tubes from jarring.

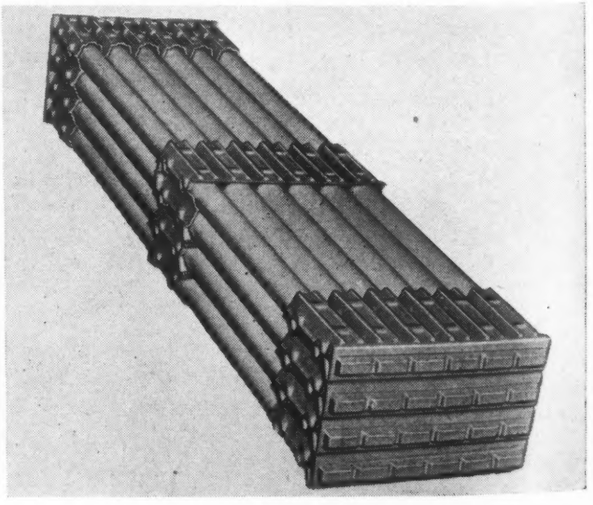
The packing shown in the center consists simply of the end pack with the flared portion cut away and the remainder slipped over the tubes. Thus it conforms to the shape of the tube and protects it from damage which might result from undue pressure on the unsupported center.

The rectangular projections which can be noted on the ends of the packs are hollowed out inside to accommodate the projections on the ends of the light tubes themselves. This affords added protection and prevents the tubes from turning in their beds and from rolling back and forth.

The entire assembly illustrated here is slipped into a regular corrugated container for shipment. The advantages of this type of packaging are obvious. Not only are the tubes thoroughly protected against breakage in transit, but the dealer can store them in quantity on his shelves and know they are safe.

CREDIT: *Molded pulp pack, Keyes Fibre Co., Waterville, Me.*

The familiar molded pulp used in egg packaging has been adapted to protect these fragile fluorescent light tubes.



Rushing home from school in time to get the icing bowl when Mother bakes cake has been a childhood rite for generations. Today's youngsters get a double portion of pot luck when the icing is made with Cocoa Marsh. Cocoa Marsh is more than tasty, wholesome chocolate syrup, it's nutritious . . . fortified with iron and Vitamin D. It's easy to use, too. Just mix it with hot or cold milk to make a delicious beverage, pour it over ice cream to make a sundae, or make it into a delicious icing for cake.

The Taylor-Reed Corporation, Mamaroneck, N. Y., manufacturers of Cocoa Marsh, have selected Crown Screw Caps,—handsomely lithographed in three colors,—as a secure, dependable seal for this product. Only Crown Screw Caps have the patented Deep Hook Thread which gives double the sealing pressure with the same amount of application force. Crown Cork & Seal Company, Baltimore 3, Maryland. *World's largest makers of metal closures.*

CROWN CLOSURES

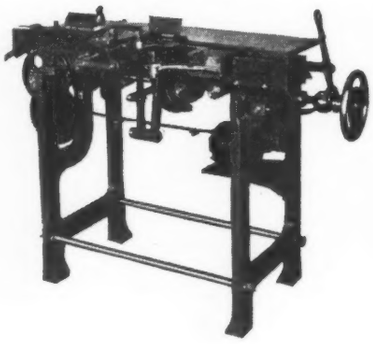
Profits Go Up! Costs Go Down!

IN YOUR CARTON PACKAGING DEPT.

Packaging in your plant is placed on an efficient basis when you make use of PETERS economical Packaging Machinery.

This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35–40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. If you desire to handle several sizes of cartons, machine can be made adjustable.

This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35–40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to handle several different size cartons.



Send us a sample of the various cartons you are now using. We will gladly send specific recommendations.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

Plants and people

(*Continued from page 158*) label lithographers. Mr. Masters was formerly with the Pacific Coast division of *The Packer*, and has recently returned from war service.

The John Waldron Corp., of New Brunswick, N. J., announces the return of **Lt. Commdr. Emil Schnitzspahn** as sales engineer.

Ted Suess, following his release from the Army, has resumed his post as manager of the St. Louis territory for the bakery sales division of **Marathon Corp.** of Menasha, Wis. **Charles Cowart,** recently released from the Navy, has been appointed sales representative and will cover Florida and portions of Georgia, Alabama and South Carolina. Mr. Cowart will make his headquarters in Jacksonville, and **Bob Day** will continue his headquarters at Atlanta, Ga., adding parts of South Carolina, North Carolina and Tennessee to his present territory.

Four new district offices have been established by the glass and closure division of the **Armstrong Cork Co.** at Dallas, Houston, Kansas City and New Orleans. These cities were formerly part of the St. Louis district office. Managers of the new offices are: Dallas, **Ralph E. Turner;** Houston, **Ernest W. Foell;** Kansas City, **Austin M. Brown;** and New Orleans, **Douglas J. Bell. James S. Taylor** has been named as St. Louis manager, replacing **J. L. Hawkins,** who has retired. The company's office in Memphis under the direction of **J. G. Carpenter.**

The Chase Bag Co., Chicago, will celebrate its 100th anniversary with the erection of a new plant in St. Louis, to be located in the 5000 block of Southwest Ave.

The Bakelite Corp. announces the election of **Allan Brown** as vice-president in charge of advertising and public relations and **George C. Miller** as vice-president and general sales manager, of the thermoplastic department.

Robert J. Ingram has resigned as sales promotion manager of **Bristol-Myers Co.** to become executive vice-president of **Fair Trade Merchandising** and **Drug Sales Builders, Inc.**

The A-B-C Packaging Machine Corp. has been formed, with headquarters at Quincy, Ill., and will take over and continue the business of the **A-B-C Packaging Machine Co.,** a limited partnership. Corporate officers are: **Morris P. Neal,** president and chairman of the board; **Dr. Johan Bjorksten,** vice-president; **Omer Rupp,** vice-president; **Ralph Schrage,** secretary and treasurer.

W. G. Paradise has been appointed Pacific Coast container engineer of the **Assn. of American Railroads' Freight Loading and Container Section,** with headquarters in Los Angeles.

Fibreboard Products, Inc., of San Francisco, announces the modernization of its paper mill and converting plant in Antioch, Cal., for the more efficient production of cartons and shipping containers. Plans call for the expenditure of over $1,000,000 on the project. Announcement has also been made of the transfer of **F. E. Bundy,** vice-president and general manager of the **Federal Container Co.,** of Philadelphia, a subsidiary of **Fibreboard Products,** to the head office at San Francisco, as general operating manager. **B. P. Altick** succeeds Mr. Bundy.

The Ohio Boxboard Co., of Rittman, Ohio, announces the promotion of **Melvin E. Barthen** from corrugated sales manager to assistant to the vice-president in charge of production. **William H. White,** having returned from the Services, has been made sales manager of the company's container division.

Lee Turley has been appointed general sales manager for **McLaurin-Jones Co.,** Brookfield, Mass. Mr. Turley was formerly with the **Nekoosa-Edwards Paper Co.,** Port Edwards, Wis.

The Sun Chemical Corp., of New York, announces the follow-

Converter News

NEW FIRM INSTALLS PRINTING AND COATING EQUIPMENT

VARIOUS MATERIALS UTILIZED TO DO SPECIFIC JOB

Papers, Foils, Fabrics and Textiles, or combinations of them, are used to meet the needs of the packaging industry.

Producing these for either functional or decorative purposes enables the Converter Corporation to offer a well rounded service to meet the customers requirements.

The sales office is located at the plant and the address of the New York office will be announced in the near future.

WELL KNOWN MEN WITH CONVERTER CORPORATION

Howard W. Lester, President, has had many years of practical experience in the converting field.

William T. Snyder, Treasurer, has had a great amount of experience in the laminating field.

Bert Blake, well known in the paper industry, will represent Converter in the New York area.

The Converter Corporation, located in Clinton, Mass., which occupies a plant with 60,000 sq. ft. of floor space, is equipped to manufacture a great variety of processed and decorated packaging materials.

Printing, Coating, Embossing, Laminating and Impregnating are the methods used to produce utility and decorative papers for the packaging trade.

A well equipped laboratory has also been installed to improve and develop ideas and methods for immediate and future requirements. These facilities are available to you.

A department for creative work in design and color has also been established to give you this much needed service.

During the war, a part of the plant was in operation for the manufacture of essential moisture vapor barriers which are now being adapted to civilian uses.

converter CC CORPORATION

DECORATING AND PROCESSING OF PAPER, FOILS, FILMS AND TEXTILES

CLINTON, MASSACHUSETTS

All These Distributors have KIMPAK Creped Wadding

Check for the one nearest you

(See KIMPAK on facing page)

ALABAMA
Birmingham . Graham Paper Co.

ARIZONA
Phoenix . . . . . Graham Paper Co.

CALIFORNIA
Fresno . . . . . Zellerbach Paper Co.
Los Angeles " " "
Oakland . . . " " "
Sacramento " " "
San Diego . " " "
San Francisco " " "
San Jose . . . " " "

COLORADO
Denver . . . . Carpenter Paper Co.
Denver . . . . . Graham Paper Co.

CONNECTICUT
Bridgeport . . . . Charles F. Hubbs
Hartford . . . . . Green & Low Paper Co., Inc.

GEORGIA
Atlanta . . . . . Graham Paper Co.

ILLINOIS
Chicago . . . Bradner Smith & Co.
Chicago . . . . . General Shippers' Supply Co.
Chicago . . . . . Graham Paper Co.
Moline . . . . . Newhouse Paper Co.

INDIANA
Indianapolis . Crescent Paper Co.

IOWA
Des Moines . Carpenter Paper Co.
Sioux City . . " " "

KANSAS
Topeka . . . . Carpenter Paper Co.
Wichita . . . . . Graham Paper Co.

KENTUCKY
Louisville . . . . Graham Paper Co.

LOUISIANA
New Orleans . Graham Paper Co.

MARYLAND
Baltimore . Hubbs & Corning Co.

MASSACHUSETTS
Boston . . Carter Rice & Co. Corp.
Worcester . . . . . Charles A. Esty Paper Co.

MICHIGAN
Ann Arbor . . . . . Crown-Ann Arbor Paper Co.
Detroit . . . . . The Whitaker Paper Company
Flint . . . . . Beecher, Peck & Lewis
Jackson . Crown Paper & Bag Co.
Kalamazoo . . . . . Bermingham & Prosser Co.
Lansing . . . . . The Weissinger Paper Co.
Saginaw . . . . . Reid Paper Co.

MINNESOTA
Minneapolis . . Graham Paper Co.
Minneapolis . Carpenter Paper Co.
St. Paul . . . . " " "

MISSOURI
Kansas City . Carpenter Paper Co.
N. Kansas City . . . . . Graham Paper Co.
St. Louis . . . . . " " "

NEBRASKA
Grand Island . . . . . Carpenter Paper Co.
Lincoln . . . . " " "
Omaha . . . . . " " "

NEW YORK
Buffalo . . . . . Hubbs & Howe Co.
Hollis, L.I. . . . . Hubbs Paper Co., Inc.
New York . . . . . Charles F. Hubbs & Co.
New York . . . . . Herbert A. Post
Rochester . . . . . The Alling & Cory Co.
New York J. & F. B. Garrett Co.

OHIO
Cincinnati . . . . . The Chatfield Paper Corp.
Cincinnati . . . . . The Whitaker Paper Co.
Cleveland . . . Hubbs & Howe Co.
Columbus . . The Scioto Paper Co.
Toledo . . . . . The Ohio & Michigan Paper Co.

OKLAHOMA
Oklahoma City . . . . . Carpenter Paper Co. of Okla.
Oklahoma City . . . . . Graham Paper Co.
Tulsa . . . . . Carpenter Paper Co.

OREGON
Portland . . . Zellerbach Paper Co.

PENNSYLVANIA
Philadelphia . . . . D. L. Ward Co.
Pittsburgh . . . . . The Chatfield & Woods Co. of Pa.

RHODE ISLAND
Pawtucket . . . . Service Paper Co.

TENNESSEE
Chattanooga . Graham Paper Co.
Knoxville . . . . " " "
Memphis . . . . " " "
Nashville . . . . " " "

TEXAS
Corpus Christi . Graham Paper Co.
Dallas . . . . . " " "
El Paso . . . . . " " "
Ft. Worth . . Carpenter Paper Co.
Houston . . . . . Graham Paper Co.
San Antonio . " " "

UTAH
Salt Lake City . . . . . Carpenter Paper Co.
Salt Lake City . . . . . Zellerbach Paper Co.

WASHINGTON
Seattle . . . . . Zellerbach Paper Co.
Spokane . . . . . Spokane Paper & Staty. Co.
Spokane . . . Zellerbach Paper Co.

WISCONSIN
Milwaukee . . . . . Wisconsin Paper & Products
Neenah . . . . . Sawyer Paper Co.
Racine . . . . . Service Paper Co.

CANADA
Toronto, Ontario . . . . . F. F. Barber Machinery Co.

KIMBERLY-CLARK CORPORATION
Neenah, Wisconsin

122 E. 42nd St., New York 17 • 8 S. Michigan Ave., Chicago 3
155 Sansome St., San Francisco 4 • 22 Marietta St., Atlanta 3, Ga.

ing appointments for its **General Printing Ink Co.** division: **John F. Devine,** divisional president, and **Frederick H. Farnsworth** and **Harold A. Kernell,** divisional vice-presidents. **Ralph Quinton,** on his return from military service, has returned to **Eagle Printing Ink,** division of Sun Chemical Corp., as New England sales representative, with headquarters in Boston. Announcement has also been made of the corporation's acquisition of **Warwick Chemical Co.,** manufacturers of industrial chemicals, textile finish compounds and related products.

Lee Evans has been elected general manager of the **Palmer Development Laboratory,** Chicago, an associated activity of **Frank D. Palmer, Inc.,** makers of special, custom-built machinery, principally in the field of packaging. Mr. Evans was vice-president and technical consultant for **Frank D. Palmer, Inc.**

Package Machinery Co. of Springfield, Mass., has established a branch office in Atlanta, Ga., at 182½ Spring St. **Thomas J. Jefferson, Jr.,** has been named Atlanta representative.

Personnel appointments in the sales department of the glass container division of **Owens-Illinois Glass Co.,** of Toledo, Ohio, include **A. S. McKaig** as acting manager of the newly created prepared foods division, **Joseph W. Parks** as manager of the plastics division, **W. M. Robertson** as manager of the pharmaceutical and proprietary division, **Arthur Kohl** as manager of the household and chemical products division and **Lawrence Crossley** as manager of the Cleveland branch.

S. Carle Cooling has relinquished active supervision of the packers can sales division of the **Crown Can Co.,** Baltimore, Md., being replaced by **David O. Merrill.** Mr. Cooling will continue as vice-president of the company, however, serving as a special consultant on sales promotion and consumer relations.

Henry N. Russell has been named director of the packaging division of **J. Gordon Lippincott & Co.,** industrial designers.

Robert Sidney Dickens has been appointed design coordinator for **Product Designers,** 230 N. Michigan Ave., Chicago. Mr. Dickens will continue his own packaging design firm of **Robert Sidney Dickens & Associates.**

J. L. Ferguson Co., Joliet, Ill., announces the relocation of its New York office to 420 Lexington Ave. **A. G. Hornney** and **R. Nelson Hickman** will head the staff in the new quarters.

The Central Paper Co., Inc., Muskegon, Mich., announces the opening of a Cleveland sales office at 925 Euclid Ave. **Larry Powers,** formerly in New York, will have charge.

Pack-Rite Machines, division of **Techtmann Industries, Inc.,** announce a 500% increase in facilities at their new location, 714 W. Wisconsin Ave., Milwaukee.

Franklin Gindick, formerly head of the **OPA Fresh Fruit and Vegetable Section,** announces the opening of an office at 606 S. Hill St., Los Angeles, Cal., where he will engage in packaging research, analysis and fact-finding for the fresh fruit and vegetable industry.

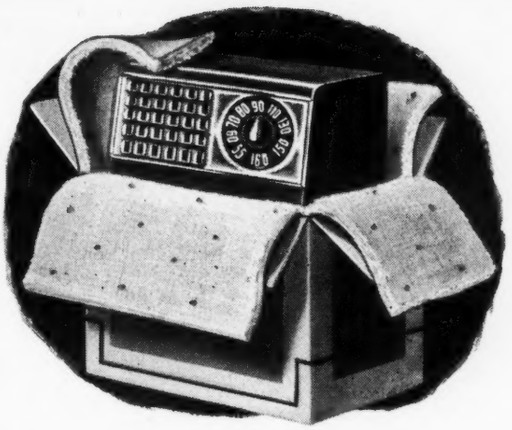
Bemis Bro. Bag Co., St. Louis, has expanded its facilities for the production of cotton, burlap and open-mesh bags by opening a factory in Los Angeles at 5401 E. Slauson Ave. **C. H. Dekker** has been appointed manager of the new plant. **F. W. Ayers,** has been transferred to the San Francisco plant.

The Superior Type Co., Chicago, announces the change of its name to **Superior Marking Equipment Co.**

The Eastern Paper Can Co., Bloomfield, N. J., has been incorporated as the **Mitchell Paper Products Co.,** with **Robert Mitchell** as president. Ownership and management of the company remain unchanged.

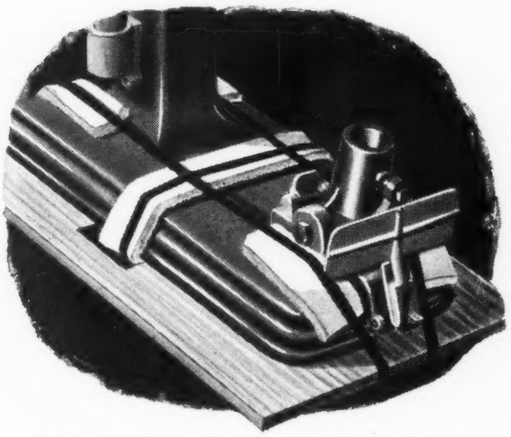
Peter Muller-Munk, Pittsburgh product designer, announces

Kimpak* Float Packaging



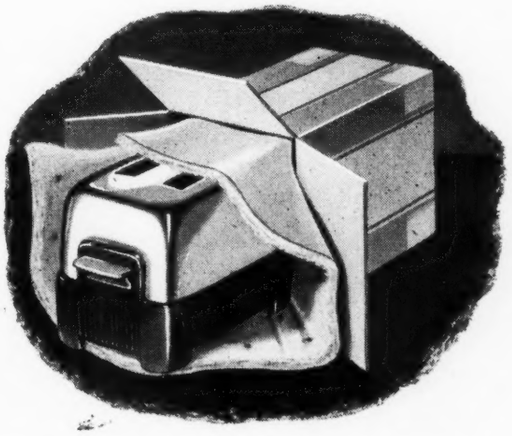
★ Absorbs Shock and Vibration

Soft as a comforter, resilient as a rug, KIMPAK Creped Wadding *floats* your product within the shipping package. It gives effective protection to delicate or irregularly-shaped objects. KIMPAK is muss-free; quicker and easier to use.



★ Kimpak Types for Every Job

Whether you ship heavy machine parts or fragile glassware . . . whether you use bracing, blocking, flotation or loose packing, there is a KIMPAK Creped Wadding to provide the qualities of protection your packing requires.



★ Gives Your Package Eye-Appeal

Besides protecting against breakage, abrasion or discoloration, snowy-clean KIMPAK presents fine merchandise in an attractive setting. In fact, KIMPAK Creped Wadding is an interior packaging material that makes your package as modern as your product.

An illustrated booklet on KIMPAK is now available. For your free copy, see your KIMPAK Distributor or mail a postcard to Kimberly-Clark Corporation, Creped Wadding Division, Neenah, Wis.

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
CREPED WADDING

A PRODUCT OF Kimberly Clark RESEARCH

*KIMPAK (trade-mark) means Kimberly-Clark Creped Wadding

DECALS *for Package* DECORATIONS

As the pictures show, there is no finer decoration than a Palm, Fechteler Engradel *decal. They are made in many colors. They are alcohol-proof, scratch-resistant and are perfectly transparent apart from the printed design, so that they give identity to transparent containers without obscuring the contents. Palm, Fechteler decals reproduce your design to perfection, or, we will make a design to your requirement. Write for information and samples.

PALM, FECHTELER & CO.
220 West 42nd Street, New York
21 East Van Buren Street, Chicago
East Liverpool, Ohio; Boston, Buffalo

Decalcomanias for the Packaging Industries

*U. S. PAT. NO. 1803836

that **Capt. Raymond A. Smith** has joined the organization as chief designer.

Ben Sackheim, Inc., New York, has been appointed to handle advertising and sales promotion for **Better Packages, Inc.**

The Thomas W. Dunn Co., New York, adhesive manufacturers, to the **Dunn Bldg., 338–340 Pearl St.**

Col. Rohland A. Isker, commanding officer of the Quartermaster Corps Subsistence Research & Development Laboratory at Chicago since 1939, has been presented with the **Legion of Merit** award.

Major Edwin L. Hobson III, chief of the Plastics Section, Research and Development Branch, Office of The Quartermaster General, has been awarded the **Legion of Merit** for his direction of developmental work in plastics.

The Brown-Bridge Mills, Inc., Troy O., manufacturers of gummed papers and tapes, announce the return to the organization of **Lt. Dave Band,** recently released from military service.

Extension of the area of the Washington sales office to include Virginia, North and South Carolina, Georgia and Florida, has been announced by the **Dow Chemical Co.,** Midland, Mich.

Andrew E. Miller, vice-president and sales manager of the **Wabash Fibre Box Co.,** Terre Haute, Ind., has resigned and **Charles H. Hutchins** succeeds him.

Howard Ketcham has re-opened his industrial design, color and product research office at 101 Park Ave., New York, following his release from the U. S. Navy.

Buchanan Associates Inc., New York, has been organized by **Thomas B. Buchanan, F. Ashton Smith of Valley Industries** and **Hugh C. Pierson** to engage in the development and production of protective packaging materials.

J. V. Byrne, widely known throughout the field as a salesman for **Marathon Corp.,** Menasha, Wis., died suddenly on December 17 following a heart attack.

For your information

(*Continued from page 160*) with 22 full-page drawings by **Robert Greco,** the book is a companion volume to **"A Pictorial History of Paper,"** published last year by the same organization.

The 1945–46 edition of the **"Source of Supply Directory,"** published annually by the **Howard Publishing Co.,** is now available. The book contains a listing of materials and equipment suppliers for the paper and paper-products industries. Priced at $2, the book can be obtained by writing to the publisher at 1810 Conway Bldg., Chicago.

In response to a study to determine what kind of information on a food label is most helpful to the consumer, **U. S. Inspected Foods Service** reports that 74.4% of those questioned express preference for a label combining description, grade and information concerning use and preparation. More than 85% want the selection data placed in one section on the label.

Opinions were obtained by a mailed questionnaire comprising a set of 17 labels from member canners of USIFS, all carrying the U. S. ranking grade and including two brand labels showing the Association's recommended shield-type panel and one of its previously recommended X-Ray type labels. (Modern Packaging July, 1945, p. 110.) More than 3,000 consumers in four educational groups were asked to return the label they considered most helpful in selection at the point of sale. Tabulations were based on a total of 34.4% returns. The Educational Service states that the tabulation bears out its contention that "to be most helpful a label should include all types of information in so far as space permits." The report shows that 52.6% preferred the new shield-type label and 21.1%, the X-Ray label.

The responsibility of delivering a product to the consumer in perfect condition belongs to the package. For this reason Milprint maintains a complete laboratory, staffed by graduate chemists who constantly subject new and old materials to every known test. Laminations, Coatings, Thermoplastics, Papers, Foils, and many new applications — are proven in the laboratory before they find themselves in your package! This sense of responsibility for *maximum* protection of your product is always an integral part of your Milprint package.

★ *Sales Offices at* • New York • Chicago • Boston • San Francisco • Philadelphia • Grand Rapids • Los Angeles • Cleveland • Dallas • Minneapolis • Cincinnati • Atlanta • Pittsburgh • St. Louis • Indianapolis • Kansas City • Memphis.

MILPRINT Inc.

PACKAGING CONVERTERS • PRINTERS • LITHOGRAPHERS

plants at Milwaukee, Philadelphia, Los Angeles, Tucson and San Francisco

PACKAGING HEADQUARTERS TO AMERICAN INDUSTRY

Want to stay in business — profitably?
Want to go into business — profitably?

AMERICAN ANODE

offers a Complete

SURVEY, RESEARCH, AND ENGINEERING SERVICE
for the use of
natural and synthetic ANODE latices and water mixes
as protective paper coatings, adhesives, and impregnants

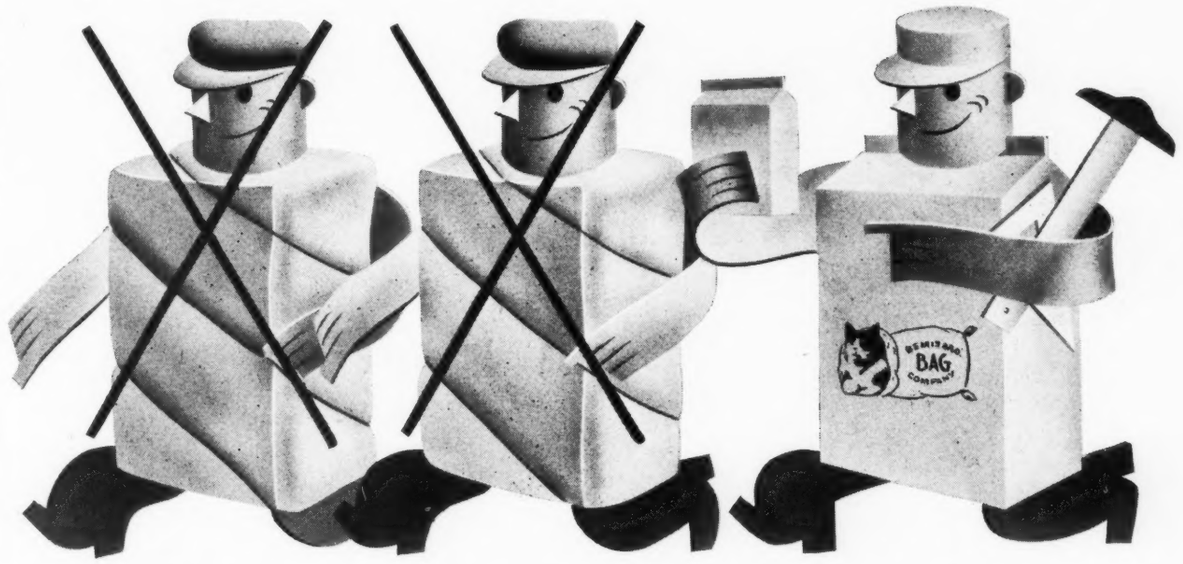
New or old product development and research
Pilot plant design and operation
Redesign of old equipment and production methods
Design of new equipment and production methods
Complete research and development laboratory service
Consultant service for all problems relating to coatings, impregnating, cementing
All types of latices available at Akron plant — natural rubber, GR-S, Hycar, Geon, Neoprene, Saran.

AMERICAN ANODE *is the only company offering this complete service*

FOR MORE INFORMATION PLEASE WRITE
AMERICAN ANODE, INC., DEPT. AC-2,
60 CHERRY STREET, AKRON, OHIO

AMERICAN ANODE
INCORPORATED
NATURAL AND SYNTHETIC RUBBER LATICES, WATER CEMENTS AND SUSPENSIONS

Are you using Three men on a wrapping job



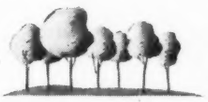
when a special paper bag will do the work of two?

Yes, if you now wrap your product in paper, there is a good possibility that Bemis can develop a bag for your product that will give you savings in time, labor and materials in your packaging department . . . perhaps save the services of two or more men now engaged in wrapping.

Call Bemis Paper Bag Specialty Division Today

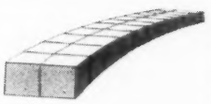
The same Bemis Packaging Specialists whose ingenuity developed bags for the products illustrated, will study your operations upon request. Their recommendations may result in important competitive advantages and savings in packaging costs. Mail coupon for immediate action.

SUCH PRODUCTS AS THESE—NOW WRAPPED IN PAPER —MAY BE PACKED IN BAGS



Trees can now be shipped in special paper bags, instead of being wrapped. Advantages: Faster, easier handling; moisture around roots is retained; longer, safer shipments are possible.

Wallboard—Six sheets, 4′ x 12′, can be slipped into a special paper bag in one simple operation. Advantages: Savings in labor, time, materials, floor space in your packing departments.



100-Pound Cubes of Firebrick—A special paper bag makes this hard-to-wrap products easier and cheaper to package. Other advantages: Original moisture retained longer; quality and shelf-life prolonged; return of goods minimized.

BEMIS BRO. BAG CO.

PAPER BAG SPECIALTY DIVISION • 1054 S. VANDEVENTER, ST. LOUIS, MO.

COUPON

Gentlemen: Please have a Bemis Packaging Specialist call on me. I'm interested in a special paper bag for_____
(product)

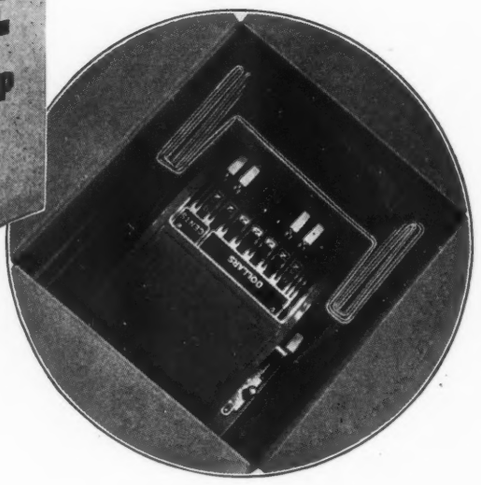
*Name*_____

*Firm Name*_____

*Address*_____

*City*_____ *State*_____

Precision Instruments Must Be Carefully Packed to Insure Safe Delivery



COURTESY THE PAYMASTER CORP.
MFGRS. OF CHECK PROTECTING MACHINES

THEY ARE SAFER IN A

"*Package by Inland*"

● The Paymaster Check Protector is a good example of careful designing by Inland Package engineers. Correct balance, proper bracing, and ease of handling assure safe delivery. Your products too will receive the same careful consideration which will enable them to be shipped successfully when they are in a

"*Package by Inland*"

INLAND

CORRUGATED FIBRE BOXES

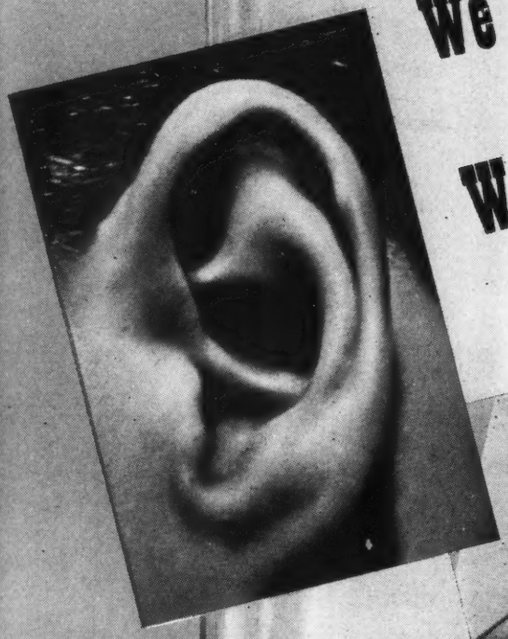
Designed for every need

INLAND BOXES

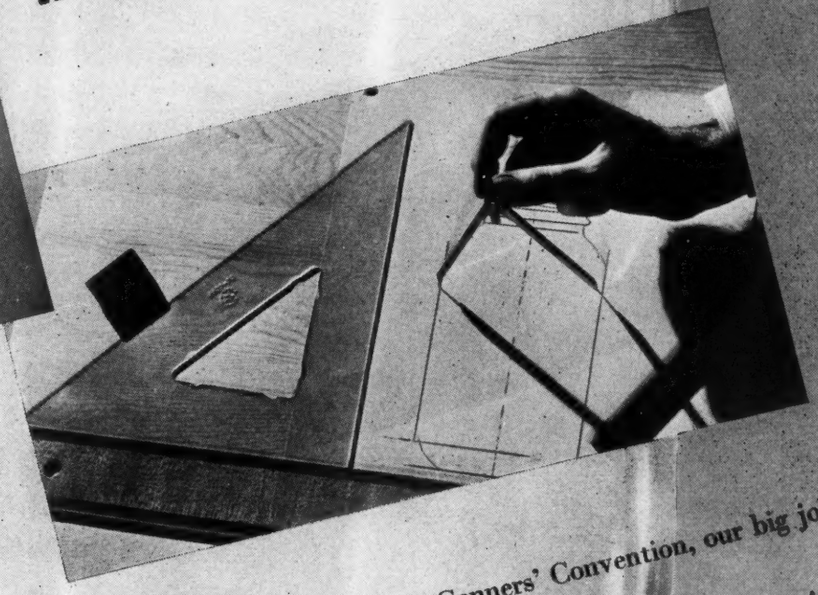
INDIANAPOLIS, IND. • MIDDLETOWN, OHIO • EVANSVILLE, IND. • MILWAUKEE, WIS. • DETROIT, MICH.

Canners' Convention—1946

We looked . . .



We listened . . .



At the first post-war Canners' Convention, our big job was one of looking and listening. For, wherever possible, it is our policy to incorporate the practical suggestions of packers as an integral part of every H-A design.

HAZEL-ATLAS GLASS COMPANY

WHEELING W. VIRGINIA

BOSTITCH
may have the answer for YOU

Costs Too High? Modest investment in Bostitch machinery saved $2,000 a year attaching fish lures to cards.

Need More Sales Appeal? Bostitching to counter display keeps products "out front", inviting impulse purchase.

Trouble in Shipment? Bostitching cartons top and bottom forestalls loss due to pilfering and loosening by dampness.

Want to Improve Utility? Potato bags—and other bags—are Bostitched to form a handle for easy carrying.

Investigate Bostitching for fastening metal, plastics, wood, cloth, paper . . . in any combination . . . very often much faster, easier, better than gluing, taping, nailing, etc. Mail coupon for folder covering representative models; it may suggest an application that you can use to lower costs or improve fastening.

BOSTITCHING
offers you the most in stapling

Experience... 1896 Nearly 50 years specializing in fastening.

Engineering . . . 18 research engineers.

Selection . . . . . . Nearly 800 models.

Service . . . Over 200 local representatives, all stapling specialists (300 prewar, 400 postwar).

Bostitch Staples in most sizes are now available

BOSTITCH (Boston Wire Stitcher Company),
51 Duane Street, East Greenwich, R. I.
(Bostitch-Canada, Ltd., Montreal).

Please send folder on Bostitching for carding . . . bagging . . . shipping . . .

Name .....

Company .....

Address .....

BOSTITCH
fastens it better, AND FASTER with wire
ALL TYPES OF STAPLES APPLIED BY MACHINES
ALL TYPES OF MACHINES FOR APPLYING STAPLES

A Pattern of Packaging PERFECTION

All with Clearsite advantages

*Registered U. S. Pat. Off.

- SHATTERPROOF
- SEAMLESS
- COLORFUL
- FEATHERLITE
- imprinted during manufacturing process.

Every CLEARSITE* *plastic* container, regardless of the product it protects, reflects the pride of the manufacturer in the quality of his merchandise.

There's a strong sales appeal in the lustrous colorful appearance of CLEARSITE; a patrician elegance in the sheer but durable walls. Let us show you a representative line of CLEARSITE originals . . . then *you'll* want similar eye-appeal for *your* products.

CLEARSITE*; Cellulose Acetate — Safety base.

• **A Package Design Service Available!**

CELLUPLASTIC CORP.

CELLUPLASTIC CORPORATION

PLASTIC CONTAINERS
AND
PLASTIC PRODUCTS

40 AVENUE L NEWARK 5, N. J.

NEW YORK OFFICE—630 FIFTH AVENUE WEST COAST: CONTAINER SERVICE COMPANY, LOS ANGELES 27, CAL

Everything that's NEW in

☆ PACKAGING
☆ PACKING
☆ SHIPPING

The 15th Packaging Exposition sponsored by the American Management Association will for the first time bring together in one place and at one time the host of wartime developments that mean powerful new sales appeal, improved protection, and greater handling economies for your products.

Plan now to attend this greatest exposition of machinery, equipment, materials, supplies and services ever held in the field of packaging, packing and shipping!

AMERICAN MANAGEMENT ASSOCIATION'S

☆ PACKAGING EXPOSITION

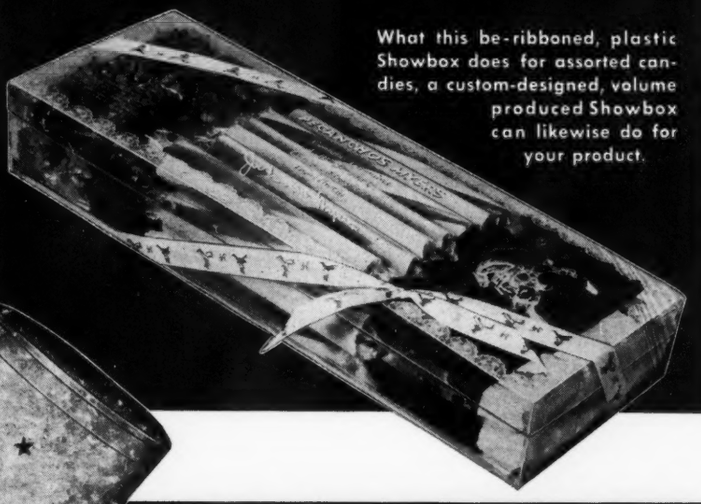
ATLANTIC CITY AUDITORIUM

April-2-3-4-5, 1946

EVERYTHING *looks its best in a* SHOWBOX

Here indeed is eye-appeal added to taste-appeal, achieved by nesting a number of small, bright packages in colored, shredded Cellophane.

What this be-ribboned, plastic Showbox does for assorted candies, a custom-designed, volume produced Showbox can likewise do for your product.



Priceless good-will accrues when imagination and creative packaging are combined to produce a gay, holiday container such as this.

Create "impulse buying" for your product with Showboxes. Send us a sample of the item you would like to glamourize and our Package Planning Group will do the rest.

SHOWBOX

DIVISION OF
CENTRAL STATES PAPER & BAG CO.
2600 N. Broadway, St. Louis 6, Missouri, U. S. A.

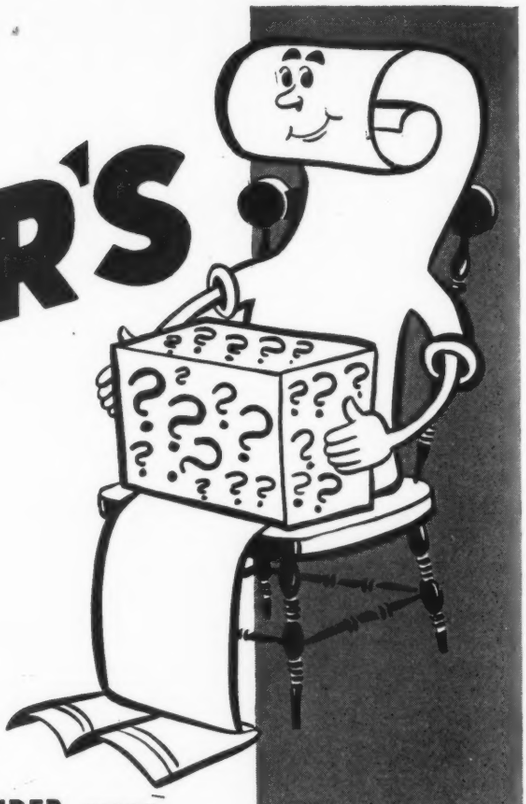
CHICAGO
520 N. Michigan Ave.

NEW YORK
489 Fifth Avenue

DETROIT
1951 East Ferry St.

PUT YOUR WRAPPER PROBLEMS IN

HI-BINDER'S LAP



Proven in war, HI-BINDER wrappers are now available to help you solve those new wrapping and packaging problems. A wide variety of laminated cloth, metal, paper, cellophane and foil wrappers are available—to dress up and help preserve your product.

Sit down with a HI-BINDER engineer. Tell him your problems. HI-BINDER wrappers are made in any size and thickness for packaging or carton linings. They will fit any packaging, carton lining or bag making machine. They are excellent for carton liners and packages where it is important to retain flavor and freshness in products.

HI-BINDER is ready to work for you now! Write for samples or more information.

SPECIALISTS IN WRAPPER PROBLEMS

Prompt Delivery

Converted by
The Floyd A. Holes Company
Bedford, Ohio, for

THE CENTRAL OHIO PAPER CO.

226 North Fifth Street Columbus 16, Ohio

Also in Detroit, Cleveland, Pittsburgh, Dayton, Indianapolis, Toledo, Charleston

Products in KNOWLTON-MADE CONTAINERS are Leaders!

STAND-OUT PRODUCTS on counters and shelves are packaged in cans made by a Knowlton Automatic Convolute Paper Can Winder. That's because of the wide variety of shapes this versatile machine makes—plus the speed and economy of production. It gives package designers more flexibility of expression to create extra eye appeal; to focus attention, to get sales. Produces shapes from 1¾" to 8" in diameter or across diagonals in paper cans or tubes of two to twenty-one plies. One to five can bodies can be made and labelled at one time and shaped for paper or metal ends.

Knowlton Engineers want to work with you. Ask for their recommendations on your packaging problems.

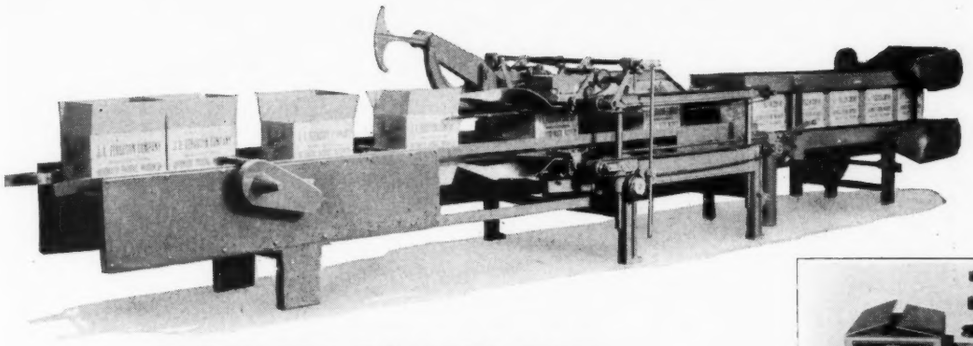
M. D. KNOWLTON CO.
ROCHESTER, N. Y.

BOSTON 637 Massachusetts Ave. (ARLINGTON)
NEW YORK 203 Wooster St.
Pacific Coast Representatives H. W. BRINTNALL CO. Los Angeles, San Francisco, Seattle
CHICAGO 9. S. Clinton St.
TORONTO, CAN. 260 Richmond St., W.

Paper cups for ice cream.....Caps that stay on tight
Cans that give variety.....to whet the appetite
ALL ARE MADE BY CONTINENTAL CAN COMPANY
When Sonny digs into that handsome paper cup you see above, he's sure to find grand-tasting, wholesome, pure ice cream. For Continental's Mono Cups are double-walled for extra protection.
Like other Continental products, Mono Cups measure up to the peak of performance and quality. They're sturdy, germ-free, leak-proof, tight-sealed to lock in flavor and goodness.
Scores of good things come in Mono Cups . . . . cottage cheese, ready-to-eat delicatessen foods, just to name a few.
And, don't forget, our trade mark is the Triple-C. Look for it on cans and caps and fibre drums and even plastics too. You'll be seeing it more and more --for we're a big family and growing!
MEMO
Continental serves behind the scenes... behind the labels of America's finest products
Products and Divisions of Continental Can Co., 100 East 42nd St., N. Y. 17, N. Y.
CONTINENTAL PRODUCTS: Metal Containers • Fibre Drums • Paper Containers • Paper Cups • Plastic Products • Crown Caps and Cork Products
Machinery and Equipment. OPERATING DIVISIONS: The Container Co., Van Wert, Ohio • Keystone Drum Company, Pittsburgh, Pa. • Boothby Fibre Can Division, Roxbury, Mass. • Mono Containers, Newark, N. J. — Plastics Division, Cambridge, Ohio • Bond Crown & Cork Co., Wilmington, Del. • Cameron Can Machinery Co., Chicago, Ill. • FOREIGN SUBSIDIARIES: Continental Can Company of Canada, Limited, Sun Life Building, Montreal, Canada • Continental Can Corporation, Havana, Cuba.

STILL STRESSING the increased variety of Continental products and services now available nearly everywhere, this colorful series boosts cans as ideal food packages under any conditions. It mentions the many other things besides cans we're making at Continental now.

You'll see this striking campaign running full-color in leading national magazines during 1946. So, keep your eye on Continental, and on Continental's trademark, too! The Triple-C stands for *one* company with *one* policy—to give you only the very best in quality and service.



PACKOMATIC MODEL "D" CASE GLUER with Belt Compression Sealer.

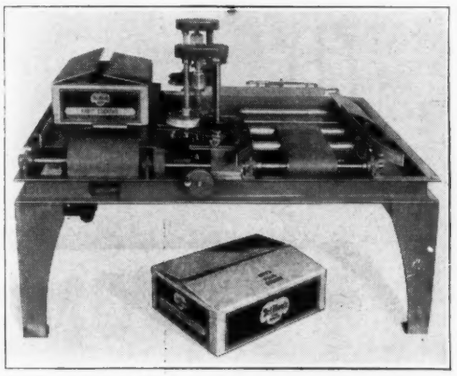
PACKOMATIC'S IDEAL COMBINATION FOR SHIPPING

• Case Sealing
• Case Numbering
• Case Imprinting

PAPER shipping cases sealed, counted . . . consecutively serial numbered . . . dated . . . and one or more panels imprinted as desired —*with all operations automatic*—that's what you have with a PACKOMATIC MODEL "D" SHIPPING CASE SEALER, equipped with PACKOMATIC CONSECUTIVE SERIAL NUMBERER, augmented by a PACKOMATIC CASE IMPRINTING MACHINE.

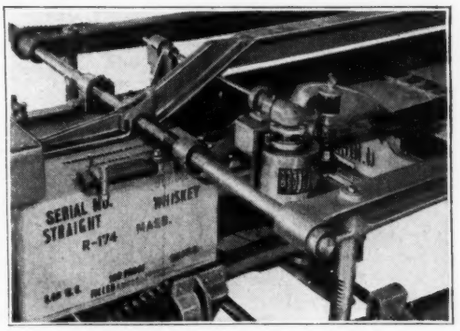
PACKOMATIC MODEL "D" SHIPPING CASE SEALER is a combination of gluing machine and compression unit. It is adaptable to practically any production requirement or plant layout for handling shipping cases at speeds up to 3,000 per hour. PACKOMATIC MODEL "D" CASE SEALERS handle a wide range of case weights—from 10 pounds to 100 pounds. Also an adequate range of case width, height and length dimensions.

PACKOMATIC MODEL "D" CASE SEALERS and auxiliary equipment have given years of day-in, day-out, trouble-free performance in the drug, cosmetic, confectionery, cereal, canned goods, glassware, dinnerware, rubber goods, health food, soap, soap powder, chemical, tobacco, soft drink, wine, distilled spirits, wax, polish, stationery, steel-wool, meat, canned & packaged soup, egg industries. Write for colorful literature. Consult Metropolitan Classified Directories for nearest PACKOMATIC office—or write Joliet.



PACKOMATIC CASE IMPRINTER

Saves warehouse space . . . eliminates use of stickers . . . reduces handling and shipping costs . . . operates up to 20 cases a minute . . . prints both ends of cases simultaneously—after they are filled and sealed . . . prints from one to seven lines of type. Adjustable for a wide range of case sizes.



PACKOMATIC SERIAL NUMBERER

Imprints ¾ inch high characters, approximately ¾ inch from center of top score line to top of imprint—consecutively up to 999,999, inclusive. Letter perceiving number identifies production line. Numbering device is mounted on case guide rail and automatically adjusts itself with gluer.

OTHER PACKOMATIC PRODUCTS

Shipping Case Sealers • Consecutive Numberers • Carton Sealers • Auger Packers • Paper Can Tube Gluers • Dating Devices • Paper Can Tube Cutters • Paper Can Shrinkers • Paper Can Labelers • Carton Makers • Automatic Volumetric Fillers • Paper Can Set-Up Conveyors • Paper Can Label Dryers

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J.L. FERGUSON CO. JOLIET, ILL.

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J. L. FERGUSON CO.
JOLIET, ILLINOIS

Please send complete data on ☐ Case Sealing ☐ Carton Filling & Sealing ☐ Can Filling Equipment.

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Address.....

City.....State.....

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GREETING CARD PAPERS
DECORATIVE PAPETRIES
BOX WRAPS
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DECOTONE PRODUCTS DIVISION

designs decorative papers that sparkle with freshness and originality of conception. These we produce by a wide variety of reproduction and finishing processes in our well equipped modern plant. Furthermore, as a division of the Fitchburg Paper Company, we produce the base papers in our own mills and so control quality and characteristics from the pulp to the finished product. The advantages to you of this are self evident.

You are invited to consult a Decotone specialty paper expert on your needs in this field. Write today!

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DIVISION
Fitchburg Paper Company
PACKAGING PAPERS *Converted Papers* SPECIALTY PAPERS
FITCHBURG, MASS.

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New Process Allows Integral Color Decoration of Plastics, Metal, Glass, Wood and other Surfaces

Creative's package decoration is proved permanent in actual use by the leading names in American packaging. Scratch-proof, rub-proof, water and alcohol-proof decorations, trade-marks and designs on dials, bottles, plastic containers, etc. No limitation on colors or design. Send for samples and prices.

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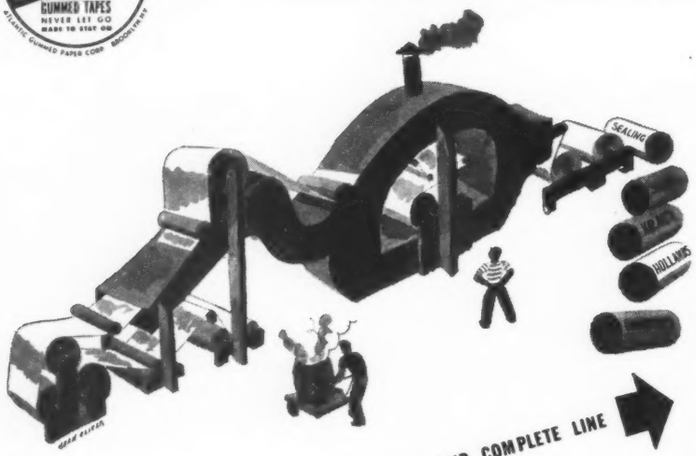
GUMMED TAPES
NEVER LET GO
MADE TO STAY ON
ATLANTIC GUMMED PAPER CORP. BROOKLYN, N.Y.

GUMMING IS OUR BUSINESS



That's Right! We're manufacturers of *On-to-Sta* Gummed Tapes and Specialties that are *made to stay on*. Assure yourself of efficient shipping operation and extra protection. . . .

SELECT YOUR GUMMED TAPES AND SPECIALTIES FROM OUR COMPLETE LINE

GUMMED SISAL TAPE ■ HEAVY GUMMED KRAFT ■ GUMMED CAMBRICS * ■ GUMMED SEALING TAPE, PLAIN & PRINTED * ■ "CARPAC" REINFORCED SEALING TAPE ■ ASPHALT LAMINATED WATERPROOF PAPERS, REINFORCED AND DUPLEXED ■ VENEER GUMMED TAPE ■ GUMMED HOLLANDS * ■ "SOLSEAL" WATERPROOF TAPE ■ CREASED GUMMED STAY * ■ COMBINING

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MANUFACTURERS OF *"On-to-Sta"* GUMMED PAPERS
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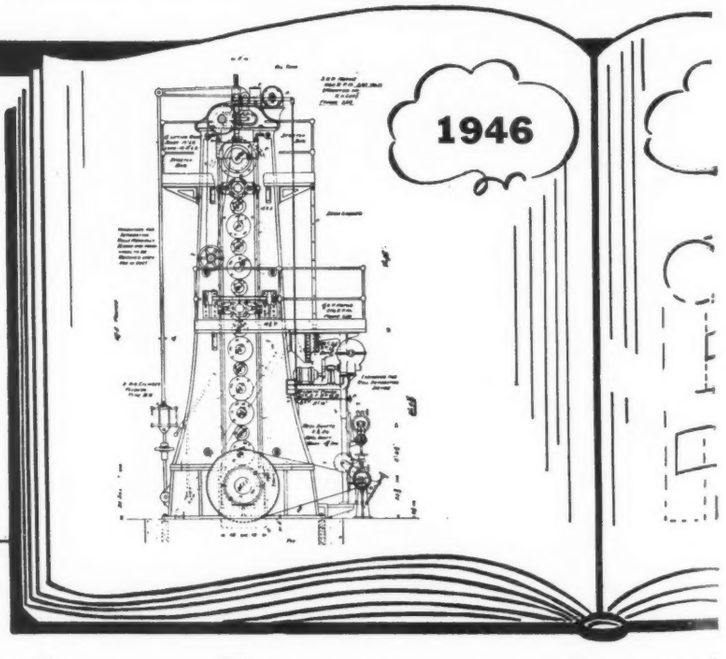
ANOTHER NORWOOD FIRST *on the Boards*



Ever since Norwood built the first glassine calender in the United States back in 1912, the Norwood line of paper finishing machinery has reflected the most advanced ideas of the industry.

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Super Calenders — *Rotary Coating Units*
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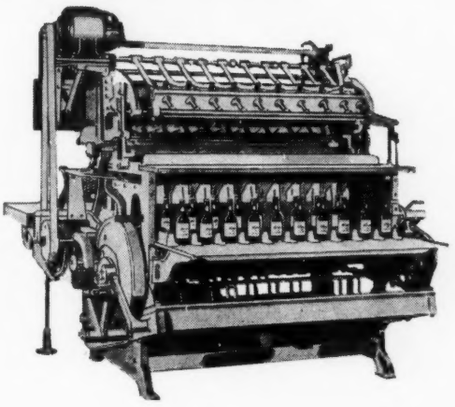
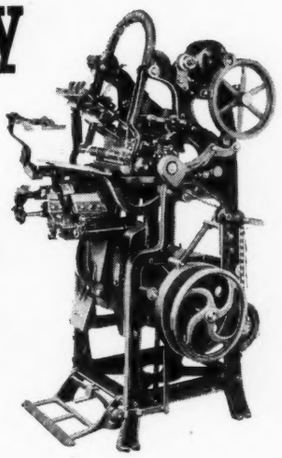


...or Variety



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Ermold gives you the advantages of *multiple* labeling—4, 6, 8 or 10 bottles or jars at one time—without the hazards of breakneck speed . . . for Ermold operates at only 20 cycles a minute. It's this slow speed that cuts breakage, maintenance costs, and shutdowns due to jamming.

For packers of diversified lines, the versatile Ermold Semi-Automatic Labeler handles a wide range of sizes . . . from 15-drop ampules to gallon containers. Simple adjustments make for quick changeover from one size to another.

Both Ermold Labelers are sturdily built for long, trouble-free service . . . efficient, low-cost labeling. Write today for details. Edward Ermold Company, 652 Hudson Street, New York 14, N. Y.

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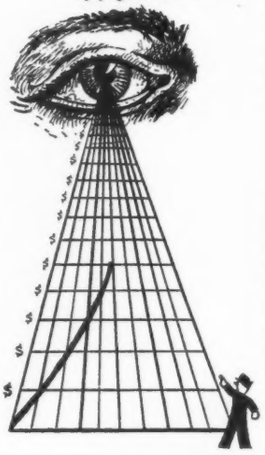

Your product looks better—sells better—when set off by a *Lanova* box or specialty paper.

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CAP AND SEAL APPLIED AS ONE

Filma-Seal* keeps the moisture out—seals the original qualities *in*—exposes tampering, prevents contamination. The seal is in the screw cap and you apply cap and seal in one operation. The seal stays on the bottle, safeguarding your product until the consumer peels off the inner seal.

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NEW PLASTIC COATED FOILS, FABRICS AND PAPERS TO WATERPROOF AND MOISTURE-VAPOR PROOF PACKAGES. ALSO, PROTECTION AGAINST MILDEW, ACID, DAMPNESS AND RUST.

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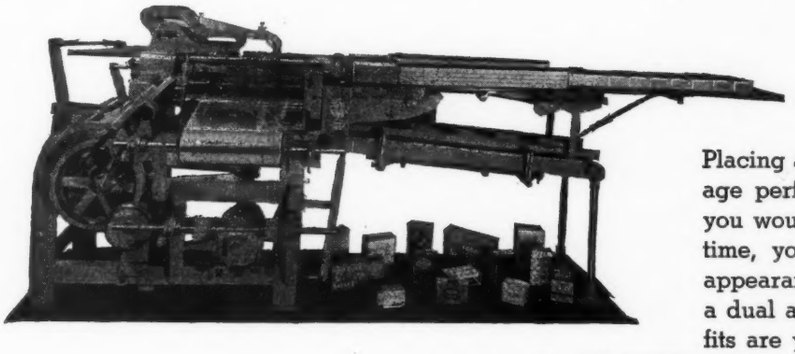
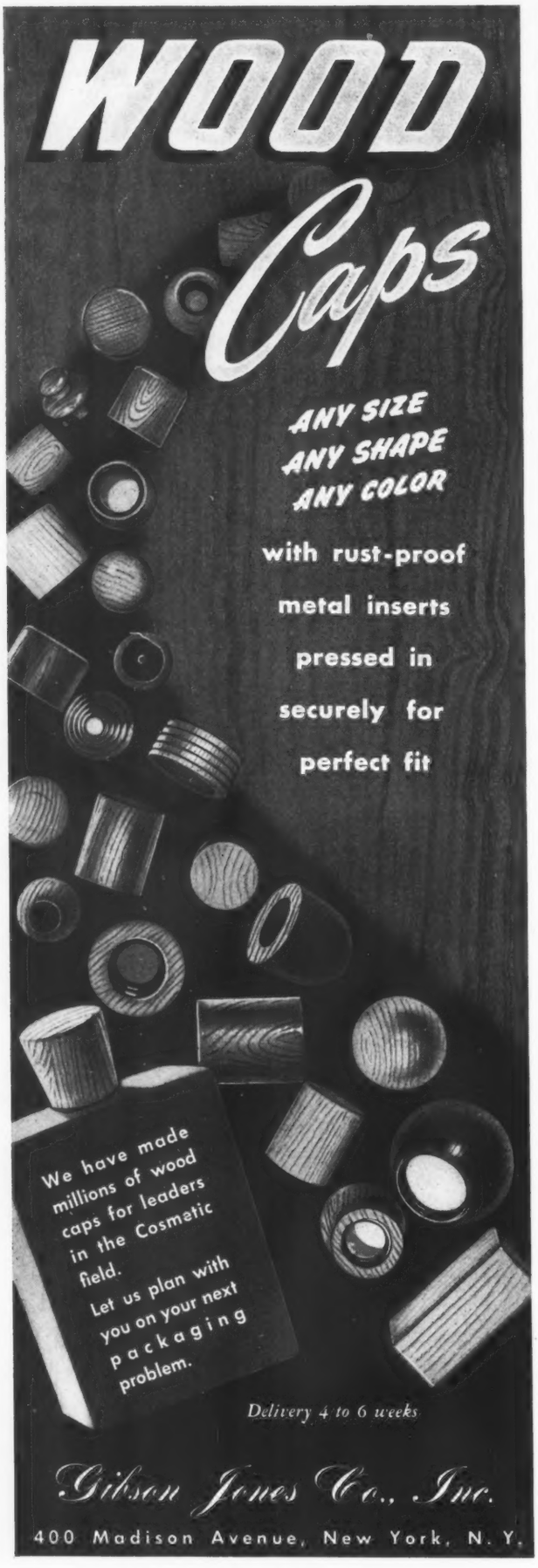


Placing an overwrap around your package performs a necessary function—or you would eliminate it. If, at the same time, your overwrap can improve the appearance of your package, you have a dual advantage. Both of these benefits are yours, at the cost of one, when you use the HAYSSEN. Whether your overwrap is printed or used plain over a printed carton, the HAYSSEN will make it look its best. The HAYSSEN, a small frame machine, can be had in various sizes, to meet the requirements of most manufacturers. And it is so simple to operate that a girl attendant can easily manage it. To obtain additional information, we invite you to contact your jobber or write the factory.

IT PAYS TO WRAP THE HAYSSEN WAY

HAYSSEN MFG. COMPANY • SHEBOYGAN, WIS.

HAYSSEN ELECTRONIC CONTROLLED **WRAPPING MACHINES**



LET US DO YOUR PACKAGING FOR YOU

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We can save you

MONEY and TIME

because— We act as the packaging department of many concerns packing all types of dry powders, chemicals, cosmetics and household products in folding boxes, cans, set-up boxes, round paper packages or envelopes.

because— We have machines already set for automatic

MIXING
FILLING
WEIGHING
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and most important— We have the manpower, the organization, the know-how. We will handle all or part of your packaging operation.

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THE STEVENS-WILEY MFG. CO. INC.

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INCREASES TABLET, CAPSULE PACKING 600%

The OTTA-MATIC tabulating and packing machine counts and packages tablets and capsules into cartons, bottles or envelopes. In specific cases (names on request) this little giant increases production as much as 600%. This machine is only 32 x 16", is light weight (55 lbs.) sturdy, completely sanitary, instantly adjustable to all sizes of tablets and containers. There is nothing to wear out or get out of order.

One user writes ". . . one of the best investments we ever made . . ." Another says ". . . we were able to bottle and label 250,000 capsules in six hours . . . ." This machine must be seen to be appreciated! Best quality materials are used throughout. Interchangeable loading and container racks are supplied.

A ten day free trial offer is your best proof of money saving, efficiency, accuracy, speed and durability. One year guarantee on each machine.

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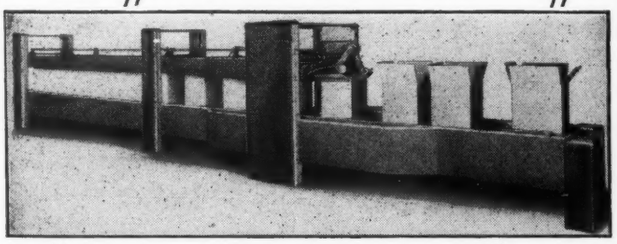
Designed for Efficient Packaging



ABC *Automatic Top and Bottom* CASE SEALER

Modern, streamlined design . . . requires no operator. Seals 30 cases per minute . . . both top and bottom, top only or bottom only. Fingertip control. Extra-rigid construction. Adjustable to 6"-18" width, 8"-30" length, 3"-28" height.

Special Engineering Service

Packaging machines correctly designed and constructed to fit your own special requirements.

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If your job calls for the perfect family . . . fine design, fine engravings and fine printing don't allow a misfit to slip in. Specify Mac Sim Bar box board . . . it makes a good job **really** complete.

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Paper Company

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A Pioneer Converter of Containers Made of

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HUMITUBE MFG. CO.
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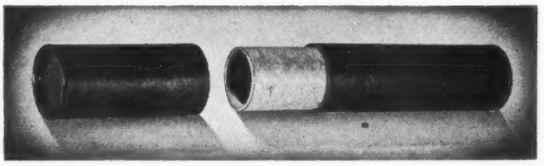
74,000 TUBES
AVAILABLE
FOR IMMEDIATE SHIPMENT



DIMENSIONS—1.65″ I.D. x 2⅛″ O.D. x 10½″ Long—Wall Thickness ¼″.

MATERIAL—Fibre Body, Spiral Type, Zinc Coated, Crimped, Steel Ends—Waterproof Tar Paper Liner—Export Type—Meets all Federal Specifications.

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Original cost $.36 each.

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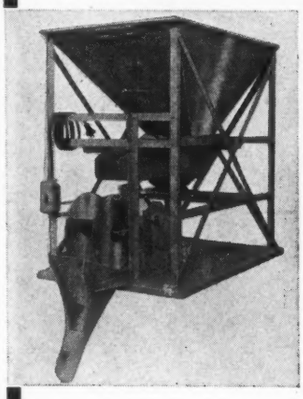
AMSCO FOR YOUR PACKAGING MACHINERY REQUIREMENTS



For greater efffciency, speed and economy, AMSCO offers machinery to perform the following operations.

1. Wrapping
2. Sheeting and gluing
3. Bag making
4. Bag and carton weighing and filling
5. Bag sealing, large and small
6. Sandwich making and wrapping
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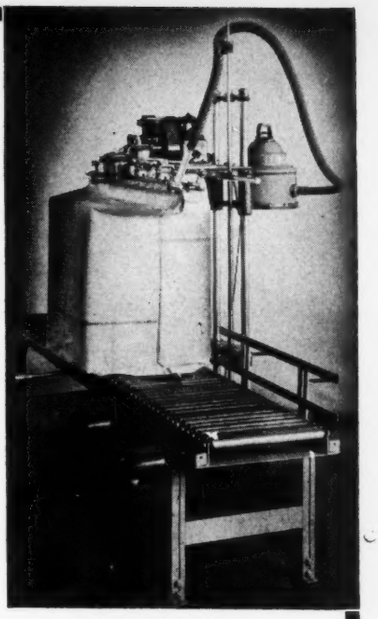


LITERATURE AVAILABLE

Holm Weighing & Filling Machine

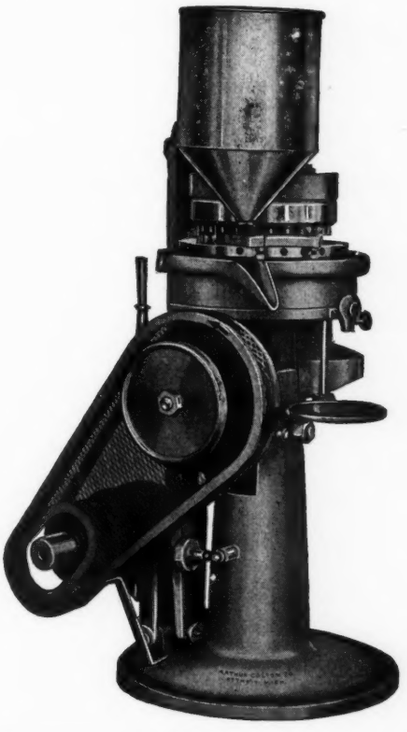
AMSCO
PACKAGING MACHINERY, INC.
31-31 48th AVENUE, LONG ISLAND CITY 1, NEW YORK
STILLWELL 4-4840

AMSCO High Speed Bag Sealing Machine

NEW ROTARY TABLET PRESS

New series 200–25 tablet machine embodies years of experience in building equipment, incorporates refinements giving an entirely new standard of performance.

Special features include new variable lower punch pull-down track plus micrometer cell adjustment minimizing punch and die wear and practically eliminating capping; solid steel tie bar; centrally located main drive shaft; lower center of gravity. Range of operating speeds is provided by built-in variable speed drive. Power transmitted through lever operated disk clutch. Special drive materially reduces power consumption. Standard speed motor. Capacity per minute: 300–800 tablets. Diameter of tablet 3/16″ to 5/8″, maximum depth of cell: 11/16″. Floor space: 30″ X 36″, height: 60″, net weight: 1025 lbs.



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America's Finest Packaging!

THAT is why the list of Stecher-Traung customers grows larger and larger each year. At both our Rochester and San Francisco plants we have top-notch artists who are skilled in the art of creating FULL Color labels, box wraps and cartons that really *sell.*

We have been producing packaging materials for some of America's best known firms for more than 75 years. If *your* material needs redesigning, needs more customer-appeal, come to the leader in FULL Color label lithography—Stecher-Traung!

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Their Better FIT
Provides . . .
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Fewer Burnouts

WATLOW STRIP HEATING UNITS

will answer any exacting heating demands — from small intricate tasks up to heavy duty jobs. They are serving many production needs for heat—air heating, preheating, contact heat, dehydration, melting, curing and drying.

Watlow Electric Strip Heating Units in various forms and shapes are available in ¾" widths on up, and in lengths up to 72" and more,—and in capacities of 25 W to 4000 W and up—for circuits of 115 V. to 440 V.

Efficiency, ease of control and long life are a few of the features you should investigate in Watlow Electric Heating Units.

Write now about your production heating needs.

SPECIALISTS IN ELECTRIC HEATING UNITS

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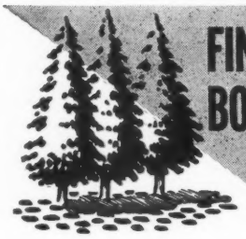

FINE WOODEN CHESTS
BOXES • DISPLAY CASES
"From Standing Timber to Finished Product"

We specialize in the design and manufacture of silverware chests, jewelry and display cases, wooden boxes, packing cases and other wood containers. Your inquiry invited.

ROCK
Manufacturing Company
STOUGHTON, MASSACHUSETTS

Include a Transparent

PLASTIC BOX or COUNTER DISPLAY

in your 1946 line.

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Now available for prompt delivery.

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The MODERN way of packing candy, cookies, food products, nuts, toiletries, toys, novelties, etc.

Send for catalogue and samples.

WEINMAN BROTHERS

325 N. Wells St.
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Investigate this Versatile Line...Now

The post war Milgate Line of "Specialty Papers" is being built up eventually to include all types of cloths, acetates, foils, boards, glassines, cellophanes and papers, "hot-melt," emulsion, or solvent coated and/or laminated. Analine printing and roll embossing add to its versatility.

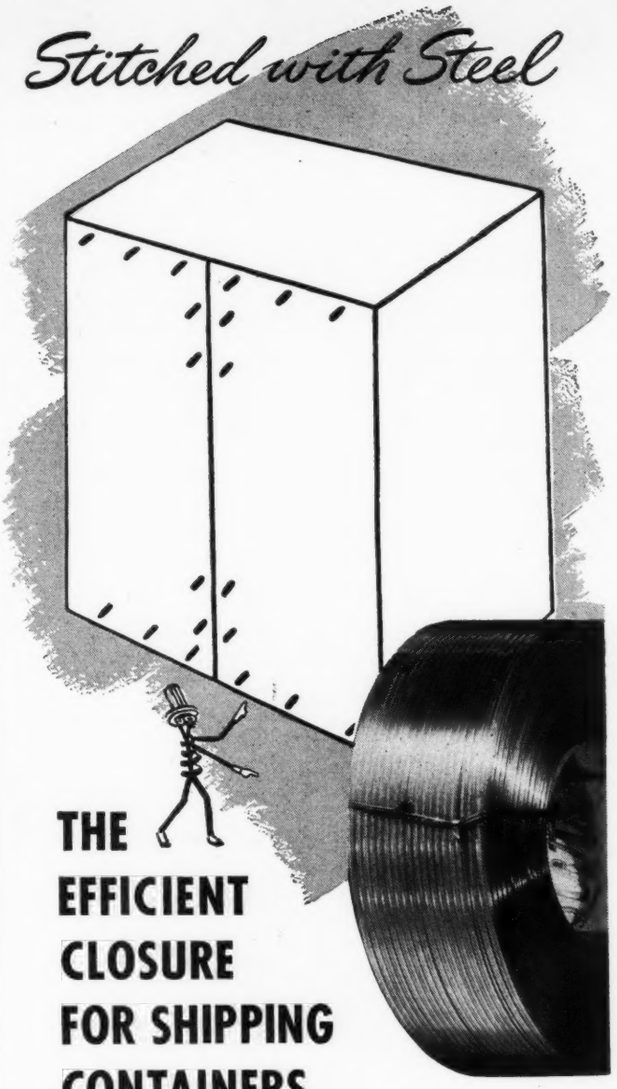
About six Milgate Line papers are now available for immediate shipment. These include "Astex," an industrial waterproof wrapping; "Silver-glas," a novelty decorative sheet; Milgate thermoplastic label paper; "Freez-Pac," a coated parchment with an extremely low MVTR rate, designed for frozen food packaging and "Sheencote," a high gloss, water and soil proof cover paper, available in white, black and red.

Send us your inquiries . . . we will supply you with samples and price lists of the *present* line. New Milgate papers will be coming through regularly . . . samples and prices of all *new* items as the line is expanded will be in your hands promptly.
Make inquiries *now* . . . it will be to your interest to *get your name on our list.*

The Milgate Line

PACKAGING DIVISION
E. W. Twitchell Incorporated
784 Public Ledger Bldg., Philadelphia 6, Pa.

Stitched with Steel



THE EFFICIENT CLOSURE FOR SHIPPING CONTAINERS

Acme Silverstitch

Advantages of closing fiber shipping containers with Acme Silverstitch Stapling Wire and the Silverstitcher:

- closures not affected by weather
- no lost time waiting for adhesives to set
- faster—no adjustment for size of box
- dependable, stronger seal than other methods
- stitches do not obscure printed message or design on the box
- cuts cost in materials and space
- easy to operate and maintain the Silverstitcher machine

ACME STEEL COMPANY

NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11

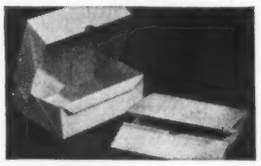
SilverStitch SilverStitchers

for Free-Running Frozen Foods

FASTER FILLING
AND PACKAGING

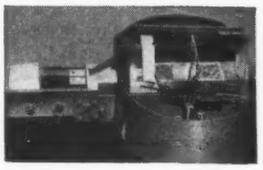
FMC

AUTOMATICALLY
1—Sets Up Cartons



2—FILLS

3—CLOSES



CARTON FILLER
with Opener and Closer

Careful tests and on-the-job runs show that this combination of the FMC Automatic Filler and Cartons designed for automatic handling can *Double* production, with one-third or less of normal hand-pack crew! For details Write, Call or Wire us today.

Also send for FMC catalog of all types, food-processing machinery and equipment.

CF-201

Food Machinery Corporation
SPRAGUE-SELLS DIVISION • Hoopeston, Illinois

NATURALLY—
. . . a distinctive tape like
RED STREAK
sealing tape

. . . deserves this DISTINCTIVE
NEW WRAPPER

And you still get the same full weight, full strength Kraft, with abundant high test animal glue—made by gumming specialists. Repeat sales are easier to get for the RED STREAK Sealing Tape name is constantly before your customers, reminding them to re-order RED STREAK Sealing Tape. Cash in now on RED STREAK—it's made by *those Gumming Specialists . . .*

● The BROWN-BRIDGE MILLS, Inc., Troy, Ohio

New York Office • 101 Park Avenue
Chicago Office • 608 S. Dearborn St.
St. Louis Office • 3739 Olive St.
Seattle Office • 2416 First St.

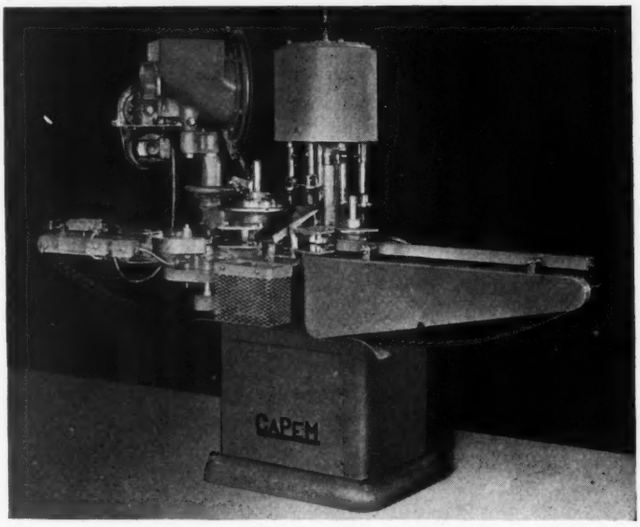
WC INC 1812

Waterbury
MOLDINGS OF MERIT

This 1946 Emerson Radio strikes a new note in decorative appeal, with its plastic grille compression molded in Lucite by Waterbury Companies. Intricate molding is no problem for Waterbury.

WATERBURY COMPANIES, INC.
Formerly Waterbury Button Co. Est. 1812
Dept. J, WATERBURY, CONNECTICUT

SPI SOCIETY OF THE PLASTICS INDUSTRY



CAPEM

. . . . APPLIES ANY SCREW-CAP AT 2000 TO 7500 AN HOUR . . . DELIVERS A LEAKPROOF SEAL . . . AT LOW COST

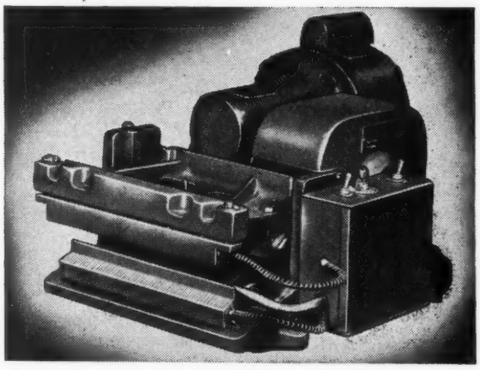
Available in 1, 2, 3, and 4 spindle models

Write for prices

CONSOLIDATED PACKAGING MACHINERY CORP.

BUFFALO 13, N.Y.

Heat Sealer



Wrapade automatic and semi-automatic heat seal machine handles foils, cellophane and other heat-sealed materials. It applies correct amount of heat and pressure in proper time cycle to make secure and lasting sealing. Can be operated with perfect efficiency by unskilled labor. Applies uniform pressure, resulting in sift-proof, tamper-proof, dust-proof and sanitary packages without glue or staples.
Saves its own costs in bag size, staples, glue, etc.
Prices and further information on request.
Now in use by many leading packagers.

WRAPADE
MACHINE COMPANY, INC.
1 Clinton St. Newark 2, N. J. Mitchell 2-3185

LAMINATED PAPERS

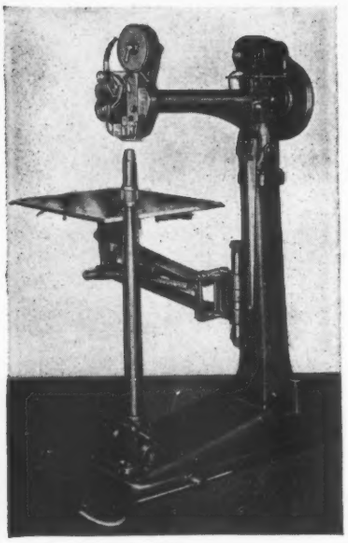
HAVE you planned for the unusual demand for this type of product after the war? • Ask about machines for laminating foil, paper, glassine, cellophane and boards. • We build them for pastes, glues, asphalts and waxes. • Can we send complete information? Ask us.

•

HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS

BLISS TOP *and* BOTTOM STITCHER

Corrugated or Solid Fibre Containers Are Stitched Both TOP and BOTTOM on This STITCHER



Set Up for Bottom Stitching

TOP and BOTTOM Stitched Containers are now specified for packing numerous products. On this Stitcher the bottoms of containers may first be wire stitched, then filled and the tops sealed with wire stitches.

The illustration at the left shows the machine set up for bottom stitching of containers.

For top stitching of filled containers, the post is removed and table and blade anvil swung into position as illustrated at right. Less than one minute is required to make the change.

The counterbalanced table is quickly adjustable for varying heights of boxes.

Built in two sizes, with 15″ and 25″ throats and 26x30″ work table. Handles boxes up to 25″ in depth. Standard Bliss Heavy Duty Stitcher Head is used. Motor ¼ HP.

Wire Stitching both top and bottom provides a uniformly secure closure and gives added strength and rigidity to the case.

Set Up for Top Stitching

Write for further information.

DEXTER FOLDER COMPANY, 330 West 42nd Street, New York 18, N. Y.

Chicago: 117 West Harrison Street Philadelphia: 387 Bourse Building Cincinnati: 1335 Paxton Street

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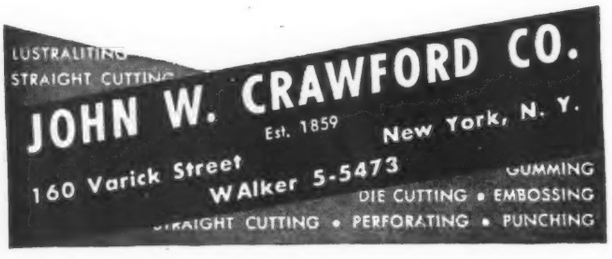
In packaging, the finish is important, too! Beautiful colors and designs need the extra sparkle of a good coating, the extra distinction of embossing or die-cutting.



MATERIALS HANDLING ENGINEERS

SPECIALISTS

To effect cost reduction and safety improvements in materials handling.

Previous experience in material handling applications is essential. Experience should include work on screw, belt, and roller conveyors, fork and lift trucks, tractors, etc.

Applicants should be between 28-40 years of age with engineering degree or equivalent and willing to travel.

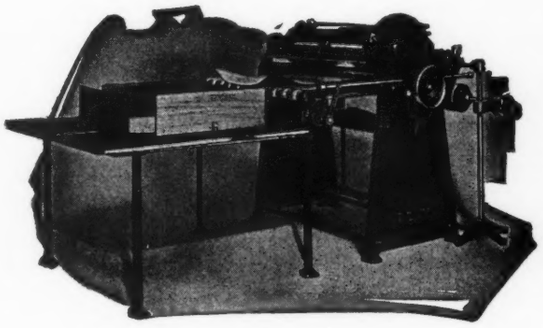
Excellent opportunity for qualified men.

E. I. DU PONT DE NEMOURS & CO. (INC.)
PERSONNEL DIVISION
Wilmington 98, Delaware

ARE YOU EQUIPPED to meet RE-CONVERSION and its acutely keener competition?

BECK SHEETERS designed and built for the mastery of accuracy and low costs, possible only through their dependable and automatic operation: these can be the unfailing answer to your needs.

Equipped with **ELECTRIC-EYE** and **SHEET-PILER** with AUTOMATIC LOWERING TABLE represents the latest in high production, automatic sheeting work.



CHARLES BECK MACHINE CO.

13th & Callowhill Streets Philadelphia, Pa.

Good Package Design

PACKAGING FOR ALL ITEMS IN A BRAND LINE

Attractive packaging makes merchandise desirable. . . . It is the silent salesman of your product on retailers' shelves.

Recognized for their contribution to outstanding design in modern packaging, the ability and experience of the WLS staff of artisans are at your service.

Interview with Principals • No Obligation

36 Pages . . . 420 Pictures . . . an Exhibit of Performance
Write for a copy of it Today on your business letterhead

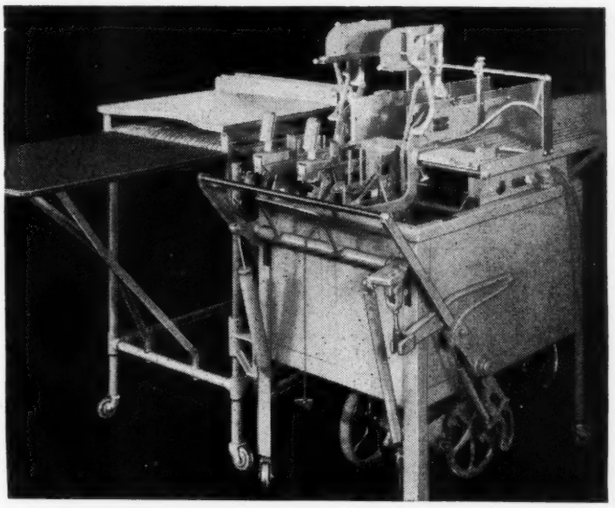
AMERICA'S LARGEST ORGANIZATION SPECIALIZING IN MERCHANDISE PRESENTATION

W. L. STENSGAARD AND ASSOCIATES, INC.

346 N. JUSTINE ST. • CHICAGO 7, ILLINOIS

Miller

MODEL M P S WRAPPING MACHINE



Wraps many sizes, cuts its own wrappers from rolls. Quickly adjustable without tools. Standard Model heat seals. Can also be furnished to glue seal. Mounted on casters, the Miller Model MPS can be rolled to the job. Plugs into any wall outlet for power.

Send us samples of your packages for information on this versatile wrapping machine.

If You Pack in Bags MILLER Offers . . .

- **SIMPLEX HIGH SPEED BAG MAKER**
  Makes 2500 to 4000 perfect bags per hour.
- **HOLM FILLING MACHINE**
  Automatically fills, by weight, 18 to 20 bags or cartons per minute.
- **AMSCO ROTARY BAG SEALER**
  Seals up to 75 bags per minute automatically.

MACHINES FOR: WRAPPING, SEALING, BAG MAKING. BAG & CARTON FILLING, BAG CRIMPING OR CLOSING GLUING AND SHEETING, SANDWICH MAKING,

Miller *Wrapping & Sealing Machine Co.*

14 SOUTH CLINTON STREET, CHICAGO 6, ILLINOIS

All classified advertisements payable in advance of publication. Rates $5.00 up to sixty words; enclosed in border, $10.00 per inch.

Classified Advertisements

Publisher reserves the right to accept, reject or censor a classified copy.

PACKAGING SPECIALIST: 20 years' experience, creative and executive, in structural design and styling for all types of packages, devising of folding boxes and displays, shipping containers, etc. Thorough knowledge of related production and merchandising requirements. Currently active on retainer and consultant basis, and available for freelance commitments. Under acceptable conditions would consider position as permanent Packaging Director. Box 383, Modern Packaging.

SACRIFICE!

One Automatic E. D. Anderson Cartoning Machine to take package 3 x 2 3/8 x 1 7/16". EVergreen 7-6600. Box 384, Modern Packaging.

POSITION WANTED

Man with knowledge of all types of containers and container materials particularly for food products desires permanent position with progressive organization anywhere in U.S.A. Box 385, Modern Packaging.

Salesman

capable of promoting a special line of laminated, cartons, folding and set-up boxes, mainly decorative, having unusual & truly unique possibilities in sales appeal. Salaried position with large well established corporation in their New York City area plant. Write Box 234, Suite 617, 1457 Broadway, N.Y.C.

Wanted for export following machinery, new or reconditioned for paper converting such as, carton and container making, coating and laminating, aniline printing, corrugating, paper stamping such as paper trays, crimped cups, tube rolling, straw card cutting, etc., etc.

Write Paper and Pulp Conversions, Ltd., 126, Delisle Road Lowe Pavel, Bombay 13, India, with copy to Box 386, Modern Packaging.

FOR SALE

2 Alsop Stainless Steel Vacuum Fillers, 8 spout; 1 Horix Vacuum Filler, 10 spout, with automatic discharge conveyer; 3 Kiefer Rotary Bottle Rinsers; Stainless Steel Tanks, 100–1000 gallons capacity; 1 Standard Knapp Top & Bottom Carton Sealer with 16' compression unit; 1 Day 100 lbs. Powder Sifter and Mixer; Filters; Conveyors; and other items for your plants. Seifert Machinery Company, 1440 N. Seventh Street, Philadelphia 22, Pa.

PURCHASING AGENT

Must have extensive knowledge of printing and know good printing sources in the East. Opportunity for right man with progressive cosmetic company located N. Y. City. To be considered letters must give full details regarding age, experience and salaries earned. Write Box 220, Suite 617, 1457 Broadway, N. Y. C.

Wanted—Art Director: Company long established in paper converting requires executive to enlarge and direct present art department. Creative Talent, ingenuity and organizational ability basic requirements. Send qualifications in detail stating experience in printing, nature of positions held and type of creative work done. Salary according to ability. Box 387, % Modern Packaging.

Sales Representative—New York, seeks to represent concern jor Jewelry Boxes, Perfume-Boxes or any other article in the Box and Packaging line. Box 388, Modern Packaging.

PURCHASING AGENT WANTED

must understand manufacture of boxes used in cosmetic industry. Knowledge of printing desirable. Opportunity for right man with leader in field of cosmetics. Location N. Y. City. Only letters giving complete details of age and past experience and salaries earned will be considered. Box 233, Suite 617, 1457 Broadway, N. Y. C.

Transparent Plastics Salesmanager. Thoroughly experienced in designing rigid boxes, cans and other cellulose acetate specialties made from sheets or rolls. Wide selling experience with all types of accounts. Now employed. Can show solid record of accomplishment. Have sufficient knowledge products and markets to develop successful sales organization or improve present one. Require and can justify substantial income. Box 391, Modern Packaging.

Mr. Manufacturer: What do you make in the packaging field that can be sold through our experienced sales staff in New York on commission basis? Box 389, Modern Packaging.

WANTED

Folding carton Production Superintendent for integrated plant located in Middle West. Experienced in all phases of folding carton work, to assume control of quality and production. Box 390, Modern Packaging.

VETERAN

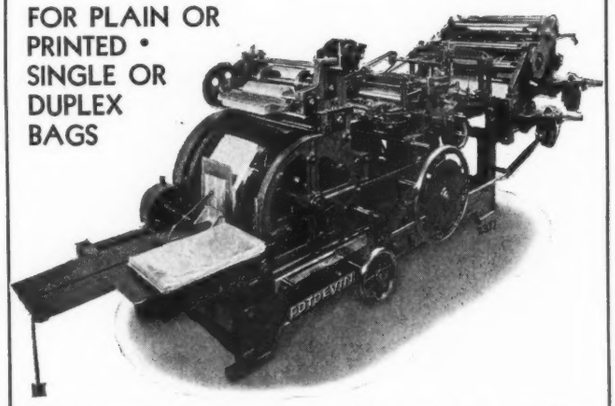
Cellophane Salesman—4 years experience in Metropolitan, New England areas, automobile, office facilities, wishes to represent firm, covering New England territory. Reply Box 392, MODERN PACKAGING.

POTDEVIN

HIGH-SPEED

CELLOPHANE BAG MACHINES

FOR PLAIN OR PRINTED • SINGLE OR DUPLEX BAGS



PMC-2377 POTDEVIN Model 111-C, High-Speed, Vertical Delivery, Cellophane Bag Machine for larger sizes of (F&S) flat and/or square "tucked" bags.

When equipped with compensator and "electric eye" it produces printed bags from preprinted, rewound rolls of material, the printing being registered on the finished bag.

POTDEVIN MACHINE CO.

1244—38th Street Brooklyn 18, N. Y.

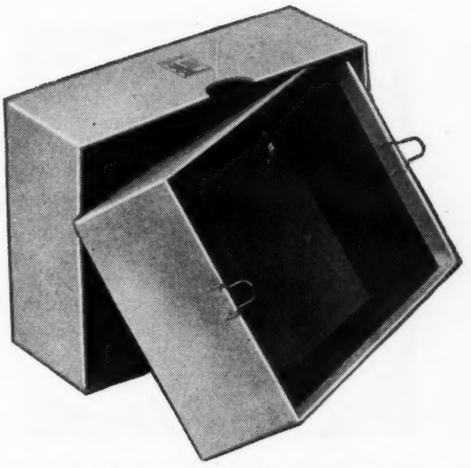
Established 1893 Tel. WIndsor 6-1700

From pens to penicillin Mason boxes help to move and to sell the world's goods. Mason's packaging engineers are backed by over fifty years of experienced box making — your assurance of a perfectly packaged product.

FILLING THE DEMAND

One of the world's most famous pen manufacturers needed thousands of broken lot deliveries when their new pen was recently introduced. They needed a quick, dependable shipping container with added safety, too. Naturally, they chose the Mason MailMaster — same box they had depended on to ship the pens to the boys overseas.

If one of your problems is economical packaging and quicker shipping, investigate Mason MailMaster for maximum protection, economical shipping. It's the box with the patented wire closures. Write today for catalog showing the entire line of Mason MailMasters, Dept. 13 The Mason Box Company, Attleboro Falls, Massachusetts.



The patented Mason "MailMaster". Light and unbelievably strong, with positive wire closure.

The MASON BOX COMPANY

MANUFACTURERS OF AMERICA'S NUMBER ONE BOX . . . THE MASON MAILMASTER

no rust
no corrosion
in this container

SHIPPERS! Your product can be seriously damaged by rust, corrosion, or mildew . . . because of "in-the-package" moisture. Avoid such damage. Include Jay Cee Silica Gel, the ideal drying agent, in the packages with your product.

Your container may be sealed "tight as a drum" against outside moisture. Yet, the vapor within can cause untold harm. Particularly, a slight drop in temperature can release dangerous moisture.

Jay Cee Silica Gel keeps the air in the package dry . . . adsorbs the vapor . . . prevents moisture damage. Jay Cee Silica Gel is a crystalline substance resembling rock salt in general appearance . . . chemically inert. Has amazing power to take up moisture without its particles changing in size or shape. Packed in 1, 2, 4, 8 oz. and 1 and 5 lb. bags. Used widely with shipments of metal parts, precision instruments, electronic equipment, dehydrated foods, fabrics, and chemicals.

The illustration shows Mr. Otto Mueller, packaging foreman, inspecting one of his Ampro Sound-On-Film Projectors sealed tightly within a representative moisture vapor-proof barrier, ready to be placed in a shipping carton. Packed within the barrier, with the Projector, are three small bags of Jay Cee Silica Gel . . . which adsorb "in-the-package" moisture and prevent damage from rust or corrosion.

(Cellophane packaging was used in this illustration as a substitute for the actual wrapping).

JAY CEE
SILICA GEL

JOLIET CHEMICALS, LTD.
112 INDUSTRY AVENUE
JOLIET, ILLINOIS

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A BRESKIN PUBLICATION

MODERN PACKAGING

Published by Modern Packaging Corp.

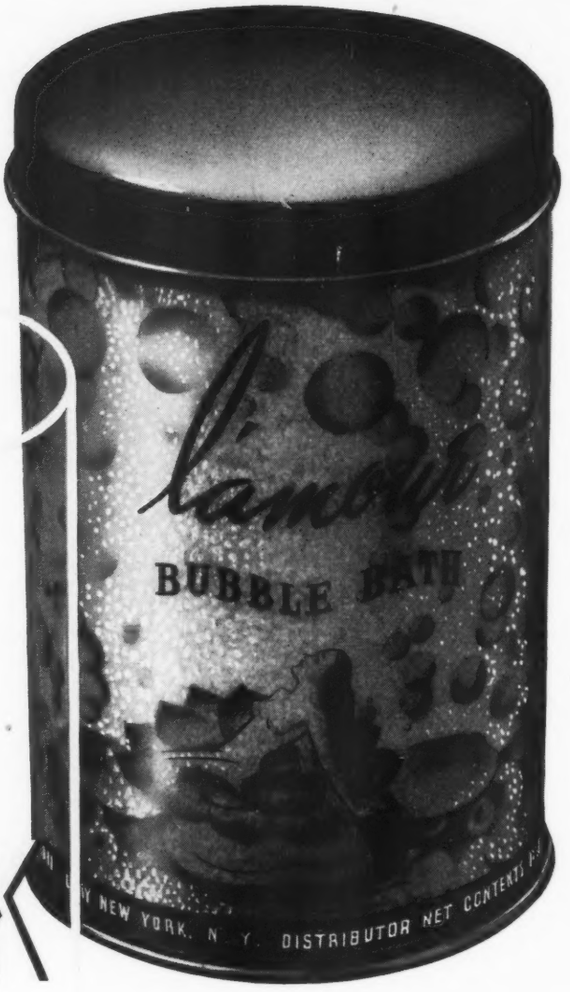
122 East 42nd Street New York 17, N. Y.

glamor is proclaimed

glamor is protected

in

VUEPAK



*Reg. U. S. Pat. Off.

You don't have to look twice to see the advantages of Vuepak* in *this* beautiful package:

First, of course, there's *transparency* . . . revealing the tempting pastel colors, the fine grain, the cleanliness of the product.

Second, there's *rigidity* . . . that gives real protection to the product as long as it lasts . . . in the store or in the boudoir. Vuepak makes a *box*, not a bag . . . a quality, plastic box with an interesting re-use value.

Then note the gleaming, crystal-clear beauty of Vuepak itself . . . also, Vuepak's ability to be decorated for added selling appeal . . . Vuepak's ability to be combined with other materials.

No wonder Vuepak packages are winning the prominent place on the beauty counters of America's busiest stores again. For Vuepak's back . . . war-improved and with new, mass fabricating techniques to make Vuepak packaging and design even more economical. If you're selling the glamor market, better contact your box-supplier or fabricator for full Vuepak facts today. Or write direct: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts.

VUEPAK
TRANSPARENT PACKAGING MATERIAL
TRADE MARK

QUESTIONS AND ANSWERS ON VUEPAK

1. What is Vuepak?
Vuepak is a transparent, tough, rigid, beautiful Monsanto cellulose acetate.

2. In what form is Vuepak available?
In sheets up to 30" wide, and in continuous rolls 30" wide up to 1000 ft. long, depending upon thickness.

3. In what thicknesses is it ordinarily available?
In six standard gauges 0.005" to 0.020".

4. Does sunlight affect it?
No.

5. Is it affected by heat?
Not under ordinary temperatures. It begins to soften after 200° F. Underwriters' Laboratories classification, "slow burning."

6. How can it be fabricated?
It can be drawn, shaped, formed or folded into almost any shape with inexpensive dies. It can be embossed, stapled, printed, cemented, or combined with other materials.

MONSANTO
PLASTICS
SERVING INDUSTRY . . . WHICH SERVES MANKIND

Picture a carton . . .
and you'll visualize the product it contains. This association of thought is a reminder that good cartons make lasting impressions.
Michigan
CARTON CO.
BATTLE CREEK, MICHIGAN

C.F.S.

with **"Dehydrapac"***

COMPOSITE FUNCTIONAL STRUCTURE . . . films, foils, cloth and paper. Any or all of these materials may be laminated to form the **"Dehydrapac"** barrier which protects all products against rot, rust and corrosion . . . against any deterioration due to changes in climatic conditions.

** Shellmar's name for dehydrated packaging, also known as Method II . . . the war packaging method using flexible, heat-sealable membranes of low water vapor permeability with a dehydrating agent.*

SHELLMAR
PRODUCTS CORPORATION
MOUNT VERNON, OHIO

PACKAGE MANUFACTURER - PRINTER - LAMINATOR - CONVERTER . . . CELLOPHANE - PLIOFILM - ACETATE - SARAN - VINYLS - FOILS - PAPERS - COATINGS